STATE OF MINNESOTA DISTRICT COURT
COUNTY OF RAMSEY SECOND JUDICIAL DISTRICT
- -

THE STATE OF MINNESOTA,
BY HUBERT H. HUMPHREY, III
ITS ATTORNEY GENERAL,

AND

BLUE CROSS AND BLUE SHIELD OF
MINNESOTA,

PLAINTIFFS,

VS. FILE NO. C1-94-8565

PHILIP MORRIS INCORPORATED, R.J.
REYNOLDS TOBACCO COMPANY, BROWN &
WILLIAMSON TOBACCO CORPORATION,
B.A.T. INDUSTRIES P.L.C. LORILLARD
TOBACCO COMPANY, THE AMERICAN
TOBACCO COMPANY, LIGGETT GROUP, INC.,
THE COUNCIL FOR TOBACCO RESEARCH-U.S.A.,
INC., AND THE TOBACCO INSTITUTE, INC.

DEFENDANTS.

- -

VOLUME I

DEPOSITION OF

DR. TIMOTHY WYANT

AUGUST 18, 1997

9:12 a.m.

REPORTED BY: JAMES M. TRAPSKIN
RPR, CM, CALIF. CSR 8407
620 PLYMOUTH BUILDING
MINNEAPOLIS, MINNESOTA 55402

DEPOSITION OF DR. WYANT, VOLUME I, taken at the Law Offices of Robins Kaplan, Miller & Ciresi, 2800 LaSalle Building, 800 LaSalle Avenue, Minneapolis, Minnesota 55402, on the 18th day of August 1997, commencing at 9:12 a.m. before James M. Trapskin, a Notary Public, Registered Professional Reporter and Certified Shorthand Reporter.

* * * *

A P P E A R A N C E S

On Behalf of the Plaintiffs:

Robins, Kaplan, Miller & Ciresi
2800 LaSalle Plaza
800 LaSalle Avenue
Minneapolis, Minnesota 55402

BY: John N. Love

Thomas L. Hamlin

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Digitized by http://industrydocuments.ucsf.edu/docs/grfl0001

On Behalf of Lorillard Tobacco Company:

Doherty, Rumble & Butler
2800 Minnesota World Trade Center
30 East Seventh Street
St. Paul, Minnesota 55101-4999
BY: Kirsten B. Stewart

On Behalf of Philip Morris:

Dorsey & Whitney
Pillsbury Center South
220 South Sixth Street
Minneapolis, Minnesota 55402
BY: Robert A. Schwartzbauer

Arnold & Porter
555 Twelfth Street, N.W.
Washington, D.C. 20004-1202
BY: Thomas E. Silfen
Ellen H. Steury

On Behalf of R.J. Reynolds Tobacco Company

Jones, Day, Reavis & Pogue
Metropolitan Square
1450 G Street, N.W.
Washington, D.C. 20005-2088
BY: Peter J. Biersteker

* * * * *

E X H I B I T I N D E X

EXHIBIT NO.		PAGE MARKED
3601	Attachment C to the Report of Doctors Zeger, Wyant and Miller	67
3602	6/2/97 Report of Doctors Zeger Wyant and Miller	109

* * * * *

http://legacy.library.ucsf.edu/tid/nqq07a00/pdf
Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

5

THE VIDEOGRAPHER: Good morning we're on the video record. Today's date is August 18th, 1997. The time is now 9:12 a.m.

My name is Brent Hislop in association with Ray J. Lerschen & Associates.

Today's witness is Dr. Timothy Wyant.

May we have introduction of counsel followed by swearing of the witness?

MR. BIERSTEKER: I'm Peter Biersteker from Jones, Day representing R.J. Reynolds Tobacco Company.

MR. SILFEN: I'm Tom Silfen for Philip Morris from Arnold & Porter.

MR. SCHWARTZBAUER: Bob Schwartzbauer from Dorsey & Whitney for Philip Morris, Incorporated.

MS. STEWART: Kirsten Stewart for Doherty, Rumble & Butler representing Lorillard Tobacco Company.

MS. STEURY: Ellen Steury from Arnold & Porter representing Philip Morris.

MR. HAMLIN: Tom Hamlin from Robins, Kaplan, Miller & Ciresi representing the Plaintiffs, State of Minnesota, Blue Cross Blue Shield of

6

Minnesota.

MR. LOVE: John Love from Robins Kaplan, Miller & Ciresi representing Plaintiffs, the State of Minnesota and Blue Cross Blue Shield of Minnesota.

DR. TIMOTHY WYANT

having first been duly sworn, was examined and testified as follows:

EXAMINATION

BY MR. BIERSTEKER:

Q. Doctor, you have been deposed several times before, haven't you?

A. Yes.

Q. I imagine based on that experience and the advice of counsel you know how this process works.

I did want to start out, though, by establishing a few ground rules.

First, if you want to take a break at any time, we can do that, all right?

A. Sure.

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support http://industrydocuments.ucsf.edu/docs/grfl0001

Q. Second, you have to answer audibly. You can't shake your head, it makes it much more

7

difficult for the reporter to get down.
So will you attempt to do that?
A. I will certainly do my best.
Q. Thank you. Third, in the give and take, it's sometimes difficult to restrain yourself when you know what the question is that I'm going to ask, and similarly it's sometimes difficult for me to keep my mouth closed while you're speaking when I feel that you've gotten to the end of an answer or another idea pops into my head.
I will try to permit you to finish your answers before I ask the next question. I hope that you similarly will try to permit me to finish the question before you begin to answer. Fair enough?
A. Again, I'll certainly do my best.
Q. All right. And if at any time I ask a question that you do not understand, and I'm sure there will be many of those, please let me know and I will do my best to try to rephrase it. Okay?
A. I will do my best on that also.
Q. Thanks. Now Doctor, you have prepared two reports in this litigation, right?

8

A. Well, I prepared one, and then I was a co-author on another.
Q. Right. The first report you co-authored with Doctors Zeger and Miller, is that right?
A. That's correct.
Q. Did you review a transcript of the deposition taken of Dr. Leonard Miller last week?
A. Yes.
Q. As I understood, Dr. Miller's testimony, both you and Dr. Miller and Dr. Zeger were all generally responsible for that report, is that correct?
A. I believe that's correct. That's a -- it was a collaborative effort on working on the report.
Q. And at the same time, though, each of you concentrated on particular subject areas addressed by that report, is that also right?
A. Yeah, there were differing concentrations.
Q. Okay. On what aspects of the June 2nd report, on which you are listed as a co-author, did you concentrate?
A. My primary areas had to do with a collection of data from Blue Cross and the state; calculation of the core model. I did the

9

primary work on extrapolation. Two years without claims data. And, of course, I did participate in most other aspects of the development of the model and so on, but I think those are my primary areas of concentration.
Q. And then the second report that you submitted, which was entitled "Additional

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support http://industrydocuments.ucsf.edu/docs/grfl0001

Smoking Attributable Health Care Expenditures for the State of Minnesota" was one that you were solely responsible for, is that right?
A. That's correct.
Q. How was it that you came to be involved in this litigation?
A. Robins, Kaplan contacted me and asked if I would be available.
Q. Had you worked with Robins, Kaplan previously?
A. I have worked with people from Robins, Kaplan; I don't think I've ever worked for them.
Q. By "people" you mean attorneys?
A. Yes.
Q. What were the cases on which you have worked with attorneys for Robins, Kaplan previously?

A. There's never been a lawsuit that I worked on.
Q. In what way, then, did you work with attorneys for Robins, Kaplan previously?
A. In designing the claims payment process for the Dalkon Shield claimant's trust, both I and attorneys and actually paralegals from Robins, Kaplan were involved.
Q. When did you first start to work on the Minnesota lawsuit?
A. I can't remember exactly, but I would estimate approximately the beginning of 1995.
Q. Was that before Doctors Miller, Samet and Zeger began to work on the matter?
A. I believe it was approximately the same time that Dr. Miller began to work on it, perhaps a little bit after. And it was somewhat before Dr. Samet and Dr. Zeger.
Q. Do you know why Dr. Samet and Dr. Zeger were added to the team?
A. No, I wasn't part of that discussion.
Q. It wasn't as if you and Dr. Miller identified a particular need and suggested that somebody else needed to address it?
A. Well, I think we certainly, as I recall,

expressed some opinions as to what our expertise was and what we'd concentrate on and the bounds of that.
Q. Was there anything that you believe fell outside of the scope of your expertise that is now being addressed by either Dr. Samet or Dr. Zeger?
A. Certainly, neither of us is an epidemiologist. And Dr. Samet added expertise in epidemiology.
Dr. Zeger added additional expertise in bio statistics and the application of statistics to health issues.
Q. Well, you are a biostatistician, right?
A. That's correct.
Q. Had, had you applied biostatistics to health issues previously?
A. Yes.
Q. Did Dr. Samet and Dr. Zeger joined the team

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://industrydocuments.ucsf.edu/docs/grfl0001

at the same time or did they join at different times?
A. Dr. Samet somewhat earlier than Dr. Zeger.
Q. Did Dr. Samet suggest that Dr. Zeger become involved?
A. I think he may have.

12

Q. Did he articulate a reason why he thought Dr. Zeger should become involved?
A. I don't recall any specifics.
Q. What do you recall generally?
A. His expertise is, as I've stated it, in a wide variety of statistical applications in the health area.
Q. Was that an expertise that you and Dr. Miller lacked?
A. I think his experience is certainly different and broader than ours in some respects in terms of applications. There's certainly a lot of overlap in expertise and experience.
Q. Did Dr. Zeger's addition to the team change in any way the fundamental direction that the analysis was taking?
A. Well, he participated in a lot of discussions on appropriate methods, and so I would have to say that, that the product is probably -- the analysis is probably different from what it would have been had he, had he not participated.
Q. Could you identify for me those aspects of the analysis that you think would have been different had Dr. Zeger not participated?

13

A. Possibly the nursing home analysis.
I believe he suggested the use of the core model.
And again, there was general collaboration that it's hard to sort out, but I, I would think those are the two primary areas.
Q. Prior to Dr. Zeger's arrival, how had you been analyzing nursing homes?
A. I, my recollection is that we were really just beginning to analyze nursing homes when he began to participate. So I'm not sure that there was much analysis done prior to his joining.
Q. Had you been assuming prior to that that nursing home SAFs would be the equivalent of hospitalization SAFs or some other SAF that you had already calculated?
A. I don't know what you mean by "equivalent."
Q. The same as.
A. Well, there were clearly different data problems and some different issues.
So what I remember is that we felt some different methods would have to be used to come up with an appropriate analysis.

14

Q. Had you identified the NHANES, N-H-A-N-E-S, data set before Dr. Zeger arrived?
A. I think so, yes.
Q. Had you done analyses of that data set prior

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support http://tobaccodocuments.ucsf.edu/docs/grfl0001

to his arrival?
A. I think we started to do some general summaries and investigations of that data. I can't remember how far they proceeded.
Q. Had you -- let me ask this question: the, did the investigations consist merely of examining the data and its reliability, or had you done actual estimates of smoking-attributable costs related to nursing homes?
Does that make sense?
A. I don't remember that any estimates had been completed before he joined, but we may have, had -- we may have begun some calculations at that point.
Q. Now as I understood it and -- well, let me just ask the question: did Dr. Samet first suggest that smoking-attributable costs be analyzed differently for specific disease processes?
A. He was certainly involved in the discussions.

I can't honestly recall whether it was his suggestion or not.
Q. Who did first suggest that you analyze smoking-attributable expenditures separately for different disease processes?
A. I couldn't isolate that. There were joint discussions on that issue.
Q. Were there joint discussions about that issue before Dr. Samet and Zeger arrived on the scene?
MR. LOVE: I'll object to the question but you can answer.
THE WITNESS: My recollection is there may have been some general discussions, but we really didn't focus on that issue prior to Dr. Samet's arrival.
BY MR. BIERSTEKER:
Q. Prior to Dr. Samet's arrival what had you done?
A. I had done a lot of work in collecting data from the claimants.
We had done work on gathering NMES and behavioral risk factor survey information and NHANES information.
And we had looked at how a more

appropriate extension of some of Dr. Miller's previous models might be developed to take advantage of additional Minnesota data.
Q. And what was the additional Minnesota data to which you're referring?
A. Claims data, the Minnesota behavioral risk factor data.
And in addition, the, there were additional computer tapes from the National Medical Expenditure Survey. Excuse me when I say "NMES" I --
Q. I understand.
A. That had not been available as early as some of the tapes.
And there may have been some other

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Digitized by the Legacy Industry Documents Library - http://legacyindustrydocuments.ucsf.edu/docs/grfl0001

sources too, but I think those are the primary things.

Q. During that period, how had you attempted to incorporate the additional information that became available from NMES, N-M-E-S?

A. I don't really recall. There was, we talked a lot about how additional data, as we understood it, might be used.

But once we began with the model that you see and described in the report, all of

our concentration was on that. And I don't really, I don't really recall much about the specifics of how we, the alternatives we had considered in dealing with the data prior to that point.

Q. Well, let me ask one question further and see if it might help.

Currently, the diminished health status model has, as its first equation, a regression to predict whether a doctor has ever told you, is that right?

A. I believe that's correct, yes.

Q. Did you, at any time prior to adopting a different methodology that we now see reflected in your report, attempt in a first regression to estimate current treatment for a tobacco-related disease?

A. I never recall that ever being attempted.

Q. Now you said there was some discussion about -- well, let me ask the question.

There, was there discussion about using a different methodology to estimate smoking-attributable costs associated with particular disease processes?

A. I'm sorry, would you mind staying -- asking

that again?

Q. Was there a discussion about using a different methodology to estimate smoking-attributable expenditures for particular disease processes?

MR. LOVE: At what time?

MR. BIERSTEKER: Well, this is when Dr. Samet and Dr. Zeger arrived.

THE WITNESS: Well, there were ongoing discussions about particular decisions as to how to analyze the data. I don't know how to answer it any, any better than that.

BY MR. BIERSTEKER:

Q. Well, you said there were discussions. And I was wondering if there were discussions, say, of the advantages and disadvantages of proceeding with a different methodology for estimating smoking-attributable costs attributable to say, CHD/stroke.

A. In my recollection, I would characterize it more as, as towards the beginning we formulated a general direction that seemed to be appropriate.

And then along the way as, in trying to

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://industrydocuments.ucsf.edu/docs/grfl0001

implement that, there were many decisions on technical issues. I don't recall any discussions on, on dramatically different approaches to estimating CHD/stroke expenditures, for example.

Q. Well, at one point -- let me, in this lawsuit, you ultimately estimate smoking-attributable expenditures for individuals who are currently being treated for tobacco-related disease and individuals who are not, right?

A. That's correct.

Q. At any point since the beginning of 1995 when you first became involved, did you attempt to estimate smoking-attributable expenditures for all those individuals using the same models, same model?

A. I don't believe there was ever an attempt to do a complete analysis.

I think prior to Dr. Samet's arrival there, we may have calculated an estimate for one year using regression methods that were similar to the, some of the models Miller had developed earlier.

Q. And at some point along the way, then, I take

it, there was a decision made to use a different methodology for people with a current tobacco-related disease than you would use for people without that disease.

A. That's correct.

Q. Were there discussions at the time that that decision was being made about the advantages and disadvantages of doing that?

A. Yes.

Q. Could you summarize for me those discussions?

A. We had the Tape 29 data from the medical expenditure survey, and we had developed a good idea of what was in the claims data from the state. And we felt that there was valuable information in both those sources of data which really was not being addressed in the prior models and really couldn't be in that formulation. And that it would really be incorrect and inadequate to estimate what we estimated without making appropriate use of that additional information.

Q. So at the end of this process, you concluded that it would be incorrect to estimate smoking-attributable expenditures for individuals without taking into account

whether they were currently being treated for a tobacco-related disease, is that right?

MR. LOVE: I object to the question. But go ahead and answer.

THE WITNESS: I, well, I would characterize it more as to estimate the attributable costs for the groups of individuals we were talking about that it was essential to take into account, in a direct way, the information on currently treated disease that we had.

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf Caution: http://industrydocuments.ucsf.edu/docs/grfl0001

BY MR. BIERSTEKER:
Q. Would it be wrong not to take that information into account?
A. I believe it would certainly give you a less reliable and less appropriate estimate.
Q. And why is that?
A. Well, it's my understanding from the, working with Dr. Samet, among other things, that those diseases are the most significant diseases associated with smoking and likely to have a tremendous impact on health costs.
Q. In your discussions, did every, did anyone ever voice concerns about using different methodologies to estimate

smoking-attributable expenditures depending upon a person's disease status?
A. I really don't know how to answer that other than, than I've answered it, I think, already. There were certainly discussions on the, the best ways to, to incorporate disease status and make appropriate use of that information.
And as I recall, there was, after discussion back and forth, there was, in every instance I can think of, a consensus on the reasonable way to proceed.
Q. I guess what I want to know is, I understand there was consensus in the end, is that right?
A. I believe so.
Q. But at some point in the process, did anybody express reservations about this approach?
MR. LOVE: I'll object. He's been asked and answered that question twice already. But you can try again.
THE WITNESS: I can't remember any significant reservations about the approach we took estimating smoking-attributable expenditures.

BY MR. BIERSTEKER:
Q. Okay. You said there was back and forth, right?
A. Yes.
Q. Okay. So far I only seem to see the forth and not the back or the back and not the forth. What I'm looking for is the flip side of the coin.
Do you have -- and, and you said "significant reservations." But I want to, I want to know generally what was the nature of the back-and-forth discussion?
MR. LOVE: Just in general about anything?
MR. BIERSTEKER: No, and you know better.
MR. LOVE: Well --
MR. BIERSTEKER: This question has a context.
MR. LOVE: The context of the question is about using different models for --

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://industrydocuments.ucsf.edu/docs/grfl0001

MR. BIERSTEKER: That is the context.
MR. LOVE: -- diseases in people

without the knowledge.
Object to that question as being asked and answered yet a third time.
MR. BIERSTEKER: That's fine.
THE WITNESS: Where are we now?
BY MR. BIERSTEKER:
Q. You may answer the question. I want you to summarize the back-and-forth on the use of different methodologies to estimate smoking-attributable expenditures depending upon a person's disease status.
MR. LOVE: Same objection.
THE WITNESS: The only general recollections I have are that there were technical issues in implementing it. And I just don't remember, without some reminder, what specific alternatives were.
Again, we usually came to a consensus and focused on those we thought were most appropriate. And a lot of those discussions were long enough ago I just, I honestly can't give you any better description than what I just have.
BY MR. BIERSTEKER:
Q. You don't recall anybody at any point during

these back-and-forth discussions who might have suggested that a consistent methodology should be used throughout the analysis, is that right?
MR. LOVE: Objection, asked and answered.
THE WITNESS: Well, I believe, I mean the methodology was consistent in the sense that appropriate methods were used in the different groups.
BY MR. BIERSTEKER:
Q. Well, you can substitute the words "same method," if you like. I just want to wrap up this area.
A. Now --
Q. Is it your testimony that you can recall nobody expressing the concern that you should use the same methodology to estimate smoking-attributable costs for individuals, regardless of disease status?
A. I don't believe I ever heard anyone seriously propose that identical methods be used across the different disease categories.
Q. Why don't we start with the core model. You say that this was originally proposed by

Dr. Zeger, is that right?
A. That's correct.
Q. Did he articulate why he thought the core method should be used?
A. Yes.
Q. Why, why did he suggest that?
A. He felt that there were advantages to both

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://industrydocuments.ucsf.edu/docs/grfl0001

simple and complex approaches in statistics, and the most powerful analyses usually combined both of them.

Q. In the end, the damage estimate presented in your report with Doctors Miller and Zeger is the dollar figure estimated using the refined model, is that right?

A. That's correct.

Q. Was the core model intended to be expositional?

A. I believe in the report he stated that it was done as a check on the refined model. Although in my opinion, it would also be a reasonable estimate of the smoking-attributable expenditures in the groups that it covered.

Q. Let me walk through with you my understanding of the core model and how it works and see if

I've got it right.

The first step, I take it, is to identify expenditures incurred by people from the claims data who you believe have one of the major tobacco-related diseases, is that right?

A. Would you mind repeating that?

Q. Sure. The first step is you identify the people in the claims data who you identify as being currently treated for a tobacco-related disease, right?

A. And the core model would be one of the major the tobacco-attributable diseases but otherwise, that's correct.

Q. And these are the major tobacco-related diseases as were identified for you by Dr. Samet, right?

A. That's correct.

Q. Do you have any understanding about why those specific diseases were included on the list while others were not?

A. I have a general understanding.

Q. What is your general understanding?

A. Smoking is a primary cause of lung cancer/COPD, a major cause of the other group

contributing. And both of these major groups involve serious diseases and has serious health and expenditure effects. They are also diseases that occur relatively infrequently.

Q. I'm sorry, it's your understanding that, say, coronary heart disease occurs relatively infrequently?

A. Compared to many of the diseases that are not on a major group.

Q. And this understanding is based on discussions you had with Dr. Samet?

A. Yes.

Q. Is that what he said?

A. Words to that effect, I believe.

Q. All right. So now you have identified the individuals who were treated for one of your major tobacco-related diseases in the claims

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://industrydocuments.ucsf.edu/docs/grfl0001

data, right?
A. Yes.
Q. You then include all of their expenditures in a total, is that right?
A. All of the health expenditures, yes.
Q. I mean, the expenditures are not limited to those that were made to treat one of the

major tobacco-related diseases, correct?
A. I think we addressed all of their expenditures, except we excluded dental.
Q. Did you include nursing home expenditures from the claims data for those individuals in those totals?
A. Before I answer that, if I can clarify the previous answer.
We also excluded any individuals who had any treatment in a facility for the mentally retarded. Those individuals were not included in any of this.
Q. Thank you. Do you still have the current question in mind?
A. I believe so.
Q. Okay.
A. Expenditures for nursing home maintenance costs were not included here.
Q. And were those nursing home maintenance costs specifically identified in the claims data in a way that made it easy to exclude them?
A. Yes.
Q. Now once you've got total expenditures for all these individuals, excluding dental and nursing home maintenance, you then apply

three reduction steps to those expenditures, right?
A. That's correct.
Q. The first reduction step in the core model is the how many smokers reduction, right?
A. That's correct.
Q. And that is the probability that you smoke, given that you have lung cancer/COPD or what you term CHD/stroke, right?
A. That's correct.
Q. Now that calculation was made in NMES, right?
A. Well, it was based on NMES. But as applied to the claims data, it was also adjusted using the behavioral risk factor survey data.
Q. Well, I'm talking about the core model, now.
A. Oh, I'm sorry.
Q. I'm sorry. That --
A. Excuse me.
Q. All of these questions are going to relate to the cord model. And I apologize, I probably contributed to your confusion.
But, but as to the core model, the calculation of that probability was made from the National Medical Expenditure Survey data, right?

A. That's correct.
Q. And then that calculation was simply applied to the Minnesota claims data as the first

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Created: http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

reduction, right?
A. That's correct.
Q. What did you control for in calculating that first reduction percentage?
A. Age and sex and type of payment program.
Q. So you separately calculated the how many smokers reduction for individuals with private insurance and for individuals on public aid, is that right?
A. That's correct.
Q. Did you ask Dr. Samet whether there were other characteristics that might affect the probability of getting one of these major tobacco-related diseases other than smoking?
A. It's -- we certainly talked about it.
Q. Did he say that there were other characteristics that increased a person's risk for getting some or all of those diseases?
A. It was my understanding that there's some characteristics that change the risk.
Q. Did you compare smokers and nonsmokers --

well, let me ask it a different way.
What were some of those other risks that you, that you believed existed for the probability of getting some or all of those diseases?
A. I remember a conversation about asbestos. I don't remember any other specifically right now.
Q. Well, as a person who has lived in this world and has been concerned with, with health issues of the past, don't you think that things like diet and exercise, occupational exposures, family history for disease, also influence whether or not a person gets that disease?
MR. LOVE: I object to the question, but you can answer.
THE WITNESS: Well, I mean I, it depends what disease you're talking about.
THE COURT REPORTER: Excuse me, sir?
THE WITNESS: It depends what disease you're talking about.
BY MR. BIERSTEKER:
Q. All right. Let's take, let's take a disease.

Do you think that diet and exercise and family history affect your risks of getting coronary heart disease?
A. I think they may.
Q. Do you know if smokers and nonsmokers have different diets and exercise patterns?
A. I have not investigated that beyond whatever's in the report.
Q. Well, I don't recall in either the refined model or in the core model seeing any variables for exercise.
Is there one?
A. There's no variable in the core model. There are variables in the refined model that may

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://industrydocuments.ucsf.edu/docs/grfl0001

proxy for exercise.
Q. Oh, what are those?
A. Socioeconomic status, overweight.
Q. You -- let me ask this way: NMES has a measure of, of exercise status in the, in the data, right?
A. I think there's some questions relating to exercise, yes.
Q. Did you ever estimate any model, whether or not it's the final one presented to us here, in which exercise was included in the model?

A. No.
Q. Certainly NMES had information about diet in the data set, correct?
A. I don't really recall.
Q. Well, do you remember whether or not you ever estimated a model in connection with this litigation? Again, whether or not it's part of the final results that you present, that included any dietary variables in it.
A. Not that I know of.
Q. Why was it more important to take into account differences in insurance status than it was in, to take into account differences that may exist in exercise and, and dietary habits?
A. Expenditures with different programs are, programs of this nature, anyway. And my knowledge and experience and based on discussions with my colleagues are always important, regardless of other health factors.
Q. I'm sorry, I wasn't listening as well as I should have been.
Were the probabilities of getting one of the two major categories of tobacco-related

diseases different depending upon a person's insurance status and the calculation that you did?
A. I believe the calculations that I did technically in the core model, now, were the probability of smoking given the disease.
Q. Yes, that's correct. Were those, were those probabilities different in the private insurance group versus the public aid group?
A. Yes.
Q. You think they may have been different still if you had taken into account exercise?
A. It's possible. I didn't make any calculation of that.
Q. Do you think they might have been different still if you had taken into account diet?
A. I mean that would be, I would simply have to speculate on that. I didn't make the calculation.
Q. In any event in the core model, the entire difference observed in the incidence of disease among smokers and nonsmokers is assumed to be due to smoking, right?
A. We estimate -- I'm sorry, I -- would you run that by me again?

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

Q. Sure. You, you estimated the probability or you calculated, really, the probability that you smoke given that you have one of two categories of major tobacco-related disease, right?
A. Yes.
Q. And you did that controlling for age, gender and insurance status, right?
A. Right.
Q. And you assumed that any differences that you observe in that probability -- well, never mind.
You assume that smokers' higher probability is entirely due to their smoking as opposed to some other characteristic that they may have that you haven't accounted for, right?
A. We estimated the additional disease incidence that was associated with smoking.
Q. Yes, but when you did that you controlled for age, gender and insurance status only, right?
A. That's correct.
Q. Okay. And so if -- it is possible, is it not, that there are other characteristics that would affect that probability, such as

exercise and diet, that were not taken into account, right?
A. It was our understanding that the characteristics we took into account were the most significant ones in determining the probabilities that we estimated.
Q. Why do you think that insurance status, again, is more important in determining those probabilities than exercise and dietary habits and other characteristics of individuals?
MR. LOVE: I object, asked and answered.
THE WITNESS: Again, I don't know what else I can add.
BY MR. BIERSTEKER:
Q. Well, I'm not sure your prior answer really addressed this question, so I would like an answer to it, please.
A. Participants in different health programs tend to have different probabilities, regardless of other health status characteristics.
Q. Okay. So it was important to take insurance status into account.

A. I believe so, yes.
Q. Why wasn't it also important, though, to take into account these other sorts of factors we've been talking about, like exercise and diet?
A. I believe again that I've already answered that.
Q. Well, did you do -- I, I'm not sure you have, and so if you could restate your answer, I'd appreciate it.

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Caution: http://industrydocuments.ucsf.edu/docs/grfl0001

A. Based on our discussions and what we understood the epidemiology to be, we took into account what would be appropriate factors to make a reasonable estimate of the kinds of probabilities we're talking about.
Q. So is it your understanding that exercise does not appreciably -- let me ask the question, start over.
Is it your understanding of the epidemiology that lack of exercise is not important in affecting the risks that one has for coronary heart disease?
A. I've never made an investigation, myself, of that particular relationship.
Q. Is that something that you discussed with

Dr. Samet?
A. I discussed with Dr. Samet what would be reasonable and important factors to have in a model of this sort to calculate these probabilities.
Q. And it was his opinion, I take it, that exercise and diet, among other factors, were not necessary to include?
A. Certainly to the extent that the factors we had in there were reasonable and appropriate.
Q. I'm not sure I understand that answer.
Could you explain it further?
A. In the core model, we included what we felt to be the most important and appropriate factors to estimate the probabilities that we estimated.
Q. Did you think that the information that you did not include was unimportant?
A. I would characterize it as far less important.
Q. And on what basis did you and the other individuals who participated in the design of the core model reach that conclusion?
A. Discussions with Dr. Samet.
General reading of other literature in

this area. And whatever general experience and training the different people brought to the table.
Q. Is there any particular literature upon which you relied to determine what factors to take into account in calculating these probabilities in the core model that you can identify?
A. In the core model?
Q. Yes, sir.
A. The Surgeon General's Report would certainly be one.
Q. Which one?
A. I've read several of them. And I would say I'm primarily, I'm primarily referring, I think, to 1989.
Q. Did you read the Surgeon General's Report sometime in the 1990s, and I can't remember which year, that addressed physical exercise?
A. I don't remember.
Q. In the course of your review or analysis, did

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf Courtesy of http://industrydocuments.ucsf.edu/docs/grfl0001

you ever compare the distribution of factors, like lack of exercise or poor diet, as between smokers on the one hand and nonsmokers on the other?

41

A. I don't believe so.
Q. Do you recall reading anything about that in the 1989 Surgeon General's Report?
A. Okay, it may have been mentioned on it or call the specifics.
Q. I want you to assume that all smokers have a bad diet and they don't exercise and they're overweight and they have a family history of heart disease.

I also want you to assume that nonsmokers are the opposite; they have a good diet, no family history for, for heart disease; they exercise three times a week, 30 minutes at a time and they have normal weight.

If you had groups like that that were completely different, the core model would assign the increased incidence of coronary heart disease among smokers entirely to smoking, wouldn't it?

MR. LOVE: I object to the question. But answer if you can.

BY MR. BIERSTEKER:
Q. You want me to break it down in pieces? We can do it.

42

A. That is, I don't know that I can begin to contemplate a hypothetical like that. That's so at odds with anything I've ever thought about.
Q. Well, you haven't really looked, though, to see whether or not smokers and nonsmokers differ with respect to these characteristics, right?
A. Which characteristics? Would you list them again?
Q. Well, I mean we can pick any ones you want. The ones I happened to choose in the question, I believe, were, were being overweight, family history, exercise and diet.
A. Well, certainly in the refined model, some of those characteristics are taken into account either directly or by proxy.
Q. Right. But we're talking about the core model, now. I just want to understand how it would work, and this is an extreme example, I understand.

But can you answer the question whether or not you think that the hypothetical posed bears any resemblance to reality?

43

MR. LOVE: I have the same objection. But if you can answer, go ahead.

THE WITNESS: I would not be inclined to speculate about that.

BY MR. BIERSTEKER:
Q. Oh, come on, Doctor. I mean, you did the

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support: http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

calculations for the core model, didn't you?
A. Certainly.
Q. You know how they work, don't you?
A. I certainly do.
Q. All right. And exercise and overweight and family history and diet were not taken into account, right?
A. They were taken into account to the extent that controlling for age, sex and type of insurance program differentiates.
Q. But you did not differentiate as between smokers and nonsmokers within those categories, right, except on smoking status.
A. That's correct.
Q. Okay. So let's try it one more time. I don't think this is speculation, I think this is just applying your methodology and explaining how it would work in this situation, okay?

Assume all the smokers are ill-behaved in, in the, in the hypothetical I gave. They're all overweight, they have poor diet they don't exercise. And all the smokers -- or nonsmokers, excuse me, are well behaved; they're normal weight, they exercise and they have a good diet.

The core model would, nonetheless, attribute all of the increased incidence of, say, coronary heart disease among the smokers to their smoking, right?

MR. LOVE: Same objection.
THE WITNESS: Well, I --
MR. LOVE: Answer if you can.
THE WITNESS: I couldn't agree to that.

BY MR. BIERSTEKER:
Q. Why not?
A. Because there are too many other relationships that, possibly an infinite number that, in my experience, you would expect a change if all of those things happened.

And without trying to make some attempt to investigate those, I'm, I'm simply not

sure that, that anything can be said.
Q. Well, are you able to apply your methodology to the hypothetical I've given? Whether or not you agree with the premise.
A. You could apply the formulas, yes.
Q. And if you applied the formulas, all of the increased incidence of coronary heart disease among smokers would be attributable to their smoking, right?

MR. LOVE: I have the same objection.

THE WITNESS: Well, I don't know that I would attribute, I would interpret the calculations that way.

You can run the calculations and get an answer. But without thinking about it further and having the kinds of discussions

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Digitized by the Legacy Industry Documents Library - http://industrydocuments.ucsf.edu/docs/grfl0001

and development such as I've discussed here, I, I don't know that I could speculate about what the attribution would be.

MR. BIERSTEKER: Am I fading?

THE VIDEOGRAPHER: Well, I think you got bumped or something.

BY MR. BIERSTEKER:

Q. I'm sorry, I lost the thread.

46

Well, how do you interpret the calculations that you have made in the core model?

A. The core model shows the additional expenditures associated with smoking in the groups that we looked at.

Q. And so you are willing to make an attribution to smoking of the differences you observed in the incidence of the major tobacco-related diseases among smokers and nonsmokers based only on their age, gender and insurance, right?

A. That's correct.

Q. How is that any different from the hypothetical I've posed?

A. What the core model does is it apply its calculations to the real world exactly as it exists and not to some hypothetical one.

Q. All right. Are you unable to apply the calculation -- let me, let me ask the question this way: you have not empirically examined any data to determine whether smokers and nonsmokers in NMES differ in important ways with respect to characteristics such as exercise and diet, is

47

that right?

A. Well, other than the factors in the defined model that I've mentioned a couple times.

Q. Right. And we've established that diet and exercise are not explicitly included in those refined models, right?

A. Explicitly, no.

Q. Have you compared smokers and nonsmokers with respect to characteristics that are not explicitly included in the refined model?

A. I may have done so on some.

Q. Which ones?

A. You're speaking in -- I'm sorry. Could you -- I've lost the thread of the question.

Q. Yeah. I mean we're talking about -- let me back up.

You're unwilling to make an attribution to smoking in the hypothetical I gave. And, and the reason, in part, is that you don't think it bears any resemblance to reality, is that right?

A. I have no reason to believe that it does, no.

Q. And my question to you is, have you explored the reality with respect to factors, such as exercise and diet, that are not explicitly

48

included in the refined model?

A. Have I explored them?

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

Q. Yeah, have you analyzed the data?
A. I don't recall making a specific calculation for the NMES data. There were calculations with regard to alcohol and exercise on the behavioral risk factors survey that we mentioned in the report.
Q. We've sort of blurred the distinction here between first and second reduction.
But the second reduction, I take it, is the, what, what you refer to as the how much extra disease reduction?
A. That's correct.
Q. Okay. And that's the probability that you have the disease, given that you smoke.
And then from that you subtract the probability that you have the disease, given that you do not smoke, and you divide it all by the probability that you have the disease given that you smoke, is that right?
A. That was well done.
Q. Okay. And again, in that context the only thing that is controlled for is age, gender and insurance status, right?

A. That's right.
Q. And those calculations too are made directly from the NMES data.
A. That's correct.
Q. Is the probability that you have the disease, given that you are a never-smoker -- are you with me so far?
A. So far.
Q. Okay. Is that probability the same thing as the probability that a smoker would have the disease if he or she never smoked?
A. In the use of, in our calculations, the probability of being treated for the disease sometime in the year during NMES and holding the other things constant that we have controlled for here, I believe that would be a correct interpretation.
Q. To the extent that those two probabilities were different, the reduction that you do, in fact, calculate, would not truly be a how much extra disease reduction, would it?
A. I don't understand the question.
Q. That was not a very good question, I agree. Let me see if I can do better.
What we're really after here is how much

extra major tobacco-related disease is there among smokers today than there would be if they had never smoked, right?
A. Well, I think what we addressed were expenditures during particular years.
Q. Well, I know --
A. And their relationship to smoking.
Q. I'm not sure how that responds to the question.
I know in the end that you apply these percentages to expenditures. But theoretically, what we're trying to do, at least in the second reduction, is to say, if

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf Caution: http://www.industrydocuments.ucsf.edu/docs/grfl0001

none of the people who smoked had ever smoked, how much major tobacco-related disease would they, nonetheless, have experienced. Right?

MR. LOVE: I'll object, asked and answered.

MR. BIERSTEKER: It wasn't answered.

MR. LOVE: It was.

THE WITNESS: I'm sorry, would you repeat the question?

BY MR. BIERSTEKER:

Q. Sure. Is the -- theoretically what we're trying to do here is determine how much of the major tobacco-related diseases would have occurred among the people who currently smoked if they had never smoked, right?

A. No.

MR. LOVE: Same objection.

BY MR. BIERSTEKER:

Q. That's not what we're trying to determine?

A. No.

Q. What are we trying to determine, then?

A. Well, we're certainly not focusing exclusively on current smokers.

Q. Oh, I didn't, I didn't mean to, to limit the question that way.

Did you understand that that's what I had done?

A. I'm sorry, I thought that that was the question.

Q. No, I didn't, I didn't mean to limit it that way. That's fair, thank you.

Let me try one more time, then. Theoretically, what we're trying to do here is determine how much of the major tobacco-related diseases that occurred among

people who ever smoked would have occurred had they never smoked, right?

A. No, I don't think so.

Q. Okay. Now I don't understand truly.

Why not? Isn't that what we want?

A. I don't know what would have happened if, if the people, if people had never smoked. What I'm looking at is for, in the world where people did smoke and the population in Minnesota, what were the excess number of diseases that did occur that can be attributed to smoking.

Q. Yeah, but how do you know if they're -- you are assuming in this analysis, aren't you, that if all the people who ever smoked had never smoked a day in their life they would experience the same incidence of disease as never-smokers have.

Have I got that right?

A. No, I don't think I'm really assuming that. I'm looking at them as they appear in the records and looking at the excess disease that occurs.

Q. Isn't it true that you compare the rate of

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf Digitized by http://industrydocuments.ucsf.edu/docs/grfl0001

disease among people who ever smoked to the

rate of disease among people who never smoked and you attribute the difference to their smoking?

A. Correct.

Q. Which brings us to the third reduction. Now this is the how many extra dollars reduction, correct?

A. I believe that's what we called it.

Q. And what is the purpose of this reduction?

A. Populations have typical levels of medical expenditures that would occur with or without these major diseases.

Q. So this is to take into account the fact that even if smokers, and by that I mean former or current, had never smoked, they still would have had some medical expenditures.

A. I'm sorry, could you --

Q. Yeah.

A. -- state that again?

Q. Is this reduction to take account of the fact even if smokers, and by that I mean current or former had never smoked, they still would have medical expenditures, right?

A. Well, in this, in the core model, it's really more the people who have lung cancer/COPD

would have had expenditures even had they not had one of those diseases.

Q. All right. It's calculated -- let me see if I understand the mechanics.

It's the average cost for a person with the disease, and then you subtract from that the average cost of a person without the disease, and you divide it by the average cost of a person with the disease.

A. I believe that's correct.

Q. Okay. Now if you had limited the expenditures -- remember when, when we started this process and started talking about the core model, if you had, if you had limited the dollars that you accumulate to only those that were expended to treat a tobacco-related disease, would it have been necessary to do this third reduction?

A. I don't know how you would do that, and so I couldn't really answer the question.

Q. You don't know how you would do what? Identify expenditures -- well, you answer the question. You don't know how you would do what?

A. Given that the data that we have, identify

expenditures that were solely related to the disease.

Q. So it was difficult to do that in the claims data, is that right?

A. I think it would be different -- difficult to do that in any claims data.

Q. I want you to put aside the practical difficulties you might have had and let's just assume it were possible to accurately

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Digitized by the Legacy Industry Documents Library - http://industrydocuments.ucsf.edu/docs/grfl0001

identify the expenditures that were made to treat the tobacco-related diseases.

And the reason I want you to do that is I want to understand the purpose better behind the third reduction, all right?

So will you assume for me that you were able to identify perfectly all the dollars that were spent on, to treat coronary heart disease and lung cancer and the other major tobacco-related diseases that you identified okay?

Are you with me so far?

A. I think so.

Q. Assuming you could do that, would it have been necessary to do the third reduction?

A. I don't know. In my experience when there's

a hypothetical of that sort and that situation occurs, so many other things change as well that it's, in my mind, irresponsible to speculate further.

Q. Well, I'm not asking you, really, to speculate. I'm trying to understand the third reduction.

What other things might you, do you think would change that make it impossible for you to answer that question?

A. Well, the point is that I don't really know; I haven't had time to think about all the times that might.

Our focus was one on actually happened and the actual situation as we encountered it, not on the infinite number of alternative worlds that might have existed.

Q. Well, let's put it this way: if you limited the group of expenditures as I've hypothesized to only those treated that were made to treat the major tobacco-related diseases and then you came to the third reduction, wouldn't that reduction be zero if you did it just the way you did it now?

A. I, I'm sorry, I'm not sure how that differs

from the previous questions.

Q. Well, it's another way of --

A. Would you ask it again?

Q. -- approaching it. It's another way of approaching it.

If you limited the pot of money that you start with to those expenditures that were made to treat tobacco-related diseases, that's my assumption that you have done that, then you come to the third reduction.

Wouldn't the third reduction be expenditures made to treat a current tobacco-related disease given that you don't have one?

A. I'm just not sure. I haven't really thought about it that way.

Q. In light of my hypothetical, I would like to ask you a question I think I've already asked you before but I want to do it anyway. And that is, what is your understanding of the

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf Courtesy of http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

purpose of the third reduction?
MR. LOVE: I'll object, asked and answered. But you can tell him again.
MR. BIERSTEKER: I was just cuing Mr. Love.

58

MR. LOVE: Sure.
THE WITNESS: Persons without a currently treated disease have a background level of expenditure. And we account for that with a third reduction.
BY MR. BIERSTEKER:
Q. Persons without a current tobacco-related disease have no background expenditures, however, for a tobacco-related disease, do they?
MR. LOVE: I'll object to the form of the question. Answer if you can.
THE WITNESS: No, I guess I would say that they wouldn't in the, as just posed.
THE COURT REPORTER: They wouldn't?
THE WITNESS: They wouldn't as in the construct we've just set up.
BY MR. BIERSTEKER:
Q. So let me try one more time.
If you'd limited, you limited the pot of money that you started with, assuming it were possible to have done it, to expenditures made to treat major tobacco-related disease,

59

wouldn't the third reduction be zero.
MR. LOVE: Objection, asked and answered.
THE WITNESS: Well, again, to me that's a different question. You're assuming that I could have done this, and I don't know what other things would have made that possible, because that doesn't coincide with my view of how the data are or what things look like. And I don't know what else might have changed that would allow one to make that determination.
BY MR. BIERSTEKER:
Q. Well, why couldn't you isolate the expenditures made to treat each of the major tobacco-related diseases included in your analysis?
A. I think that isolating those expenditures for a person who'd been -- being currently treated exceeds what can be done reliably with the ICD9 codes that are used in the claims records.
Q. As I understand that, then, what you're saying is the -- well, let me just ask it.
So neither the Blue Cross Blue Shield

60

claims data, nor Medicaid claims data, reliably identify expenditures that were made to treat major tobacco-related diseases, correct?
A. They reliably identify people who are being

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://industrydocuments.ucsf.edu/docs/grfl0001

treated for the diseases, and it reliably identifies their expenditures.

And it is difficult to break out their expenditures precisely using simply the claims information into those expenditures related to treatment of disease and not related to treatment of the disease.

Q. All right. And so I take it, then, that the answer to the question I asked, which was, do the claims data for Blue Cross and Blue Shield and Medicaid permit you to reliably identify the expenditures made to treat a major tobacco-related disease -- I lost my question.

Yes. Well, do the claims data for Blue Cross and Blue Shield and Medicaid permit you to reliably identify expenditures made to treat major tobacco-related diseases?

MR. LOVE: Objection, asked and answered.

THE WITNESS: I think they provide the information to reliably identify that, if you apply the kinds of statistical methods that we applied with our third reduction.

BY MR. BIERSTEKER:

Q. Oh. Do you think that the third reduction, then, excludes from the analysis expenditures that were not made to treat in the first example lung cancer/COPD?

A. Yes, I've identified those, I think, as the baseline expenditures.

Q. Oh. Well, if -- but, but what you subtract are the expenditures for a person without any major tobacco-related disease, right?

A. That's correct.

Q. You didn't limit it to expenditures made for a person without lung cancer/COPD, right?

A. That's correct.

Q. So, and I believe this question was asked of Dr. Miller, but let me ask it of you as well: if a person who had lung cancer/COPD also had coronary heart disease, his coronary heart disease dollars are left in the lung cancer/COPD analysis, right?

A. That's correct.

Q. Similarly, if a person who had lung cancer/COPD also had diminished health status because he smoked, those dollars would also be left in, wouldn't they?

A. I'm sorry, would you --

Q. Sure.

A. -- say that one again?

Q. If a person who had lung cancer/COPD also had diminished health status because he or she smoked, then those dollars would remain in the core models analysis, wouldn't they?

A. Those dollars would be accounted for in an appropriate way. In the core model it's an approximate way that should favor the tobacco companies.

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf Digitized by http://industrydocuments.ucsf.edu/docs/grfl0001

Q. Explain that.
A. The ideal calculation you would want to make is to compare the average dollars for someone with lung cancer/COPD.
If you're going to compare them to the people without either diminished health status or one of the other diseases with dollars, diminished health status attributable to smoking with the average

dollars for nonsmokers, what we do in the core model, which is simpler, is estimate that by using the average expenditures for people without any of the major tobacco-attributable diseases.
Q. Okay. I'm not sure I've got an answer to the question that originally starred us -- started us down this path so let me ask it one more time.
If, if a person with lung cancer/COPD also has higher expenditures because of diminished health status due to smoking, does your third reduction take those dollars out or leave them in?
A. I have to think about this for a second.
I believe that it approximately takes them out.
MR. LOVE: Peter, sometime in the next five minutes, can we take a break?
MR. BIERSTEKER: Yeah, let me just pursue this for a moment longer.
BY MR. BIERSTEKER:
Q. Explain to me why you think it takes the diminished health care dollars out of the analysis?

A. Because you're comparing those average dollars in the people with the currently treated disease to the average dollars of people, many of whom have diminished health status attributable to smoking.
Q. Isn't the answer that it doesn't really take them all out or leave them all in?
A. Well, that's my word approximately. It, I would think that it doesn't completely take them out, it takes many of them out.
Q. Have you attempted to quantify one way or the other whether it's, the degree to which the diminished health care dollars would be taken out by the third reduction in the core model?
A. No.
MR. BIERSTEKER: Why don't we take our break.
THE VIDEOGRAPHER: The time is now 10:51. This is the end of the first videotape in Dr. Wyant's testimony.
(A recess was taken.)
THE VIDEOGRAPHER: We're back on the video record. The time is now 11:08, and this is the beginning of the second video tape in testimony given by Dr. Timothy Wyant.

BY MR. BIERSTEKER:

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://industrydocuments.ucsf.edu/docs/grfl0001

Q. Doctor, I just wanted to pursue only for a few more questions what we were talking about when we broke.
And that is, all of the dollars that are left in the calculation after the third reduction are subject to the, how many smokers and how much extra disease percentages, right?
A. I, I apologize.
Q. Sure, let me try again.
A. Can you ask me that again?
Q. In the lung cancer/COPD core model --
A. Right.
Q. -- all of the dollars not taken out by the third reduction are subject to the first two reductions, correct?
A. I believe that's correct.
Q. And the how many smokers percentage for lung cancer/COPD is higher than it is for CHD/stroke, right?
A. You're talking about a particular group? I don't understand.
Q. No, I'm just talking generally.
A. Do you have some particular numbers in mind

so I'm. . .
Q. No, I don't. I mean, you, you've done this calculation.
A. Well. . .
Q. Isn't the how many smoker percentage for lung cancer/COPD higher than the how many smoker percentage -- how many smokers percentage --
A. Well, I --
Q. -- for CHD/stroke?
A. I, I think it is in general, but I'm trying to. . .
MR. BIERSTEKER: If we had managed to organize ourself, the well-oiled defense machine would have the exhibits here but we don't.
MR. SCHWARTZBAUER: Yes, we do.
MR. BIERSTEKER: Oh, we do now. Good.
MR. SILFEN: We are well oiled.
MR. BIERSTEKER: The well oiled defense machine has come to the rescue once again.
MR. SILFEN: We're particularly oily.
MR. BIERSTEKER: One moment,

please. We can go off the record.
THE VIDEOGRAPHER: The time is now 11:11. We're going off the video record.
(A recess was taken.)
THE VIDEOGRAPHER: We're back on the video record. The time is now 11:12.
BY MR. BIERSTEKER:
Q. Doctor, the entire report with all of its attachments that was submitted by Doctors Zeger, Miller and yourself has already been marked as an exhibit, and I don't want to burden us all with a mountain of paper

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf Courtesy of http://industrydocuments.ucsf.edu/docs/grfl0001

unnecessarily. So I have taken an excerpt from the report that I'm going to mark; it's Attachment C, and some of the charts that come with it. And I am informed that this should be Exhibit Number 3601.

(Defendants' Deposition Exhibit 3601 was marked for identification.)

BY MR. BIERSTEKER:

Q. You may hand it to the witness.

MR. LOVE: Can you hold on a minute, please? I'll look.

MR. BIERSTEKER: Sure.

BY MR. BIERSTEKER:

Q. And I want to direct you to chart 5A.

A. Okay.

Q. And I'm just looking at the totals here, Doctor, but the total how many smokers reduction, the total how many smokers percentage is 90 percent for lung cancer/COPD, right?

A. Yes.

Q. And the total for CHD/stroke is 68.6 percent, right?

A. Yes.

Q. And the how much extra disease percentage for lung cancer/COPD is approximately 85 percent?

A. Yes.

Q. And the analogous percentage for CHD/stroke is 37.2 percent, right?

A. Yes.

Q. So the how many smokers and how much extra disease percentages for lung cancer/COPD are higher than they are for CHD/stroke, aren't they?

A. Yes, on that totals.

Q. And so to the extent that dollars remain in the total expenditures after the third

reduction for conditions such as CHD/stroke or for diminished health status, they would be multiplied, in the case of lung cancer/COPD, by these higher percentages, right?

A. Well, you have to take into account that the how many smokers and how much extra disease are already calculated, assuming that we have defined the lung cancer/COPD group to include those people who have both lung cancer and CHD.

So you've got a consistency here and, and so there's an adjustment that factors through.

Q. Isn't it the case that you're multiplying CHD/stroke expenditures by the lung cancer numbers for how many smokers and how much extra disease in the instance where an individual who has lung cancer/COPD has also CHD/stroke?

A. The, the how many more dollars reduction is calculated in a consistent manner.

To the extent that there are lower

http://legacy.library.ucsf.edu/tid/nqq07a00/pdf Caution: http://pdfindustrydocuments.ucsf.edu/docs/grfl0001

expenditures in those who have both or higher expenditures, it takes that into account.

70

Q. I don't understand that at all. What do you mean?
A. We have defined three groups.
Q. All right.
A. And in our definition of those groups, there's one group that has lung cancer/COPD. And from what I recall, a small fraction that also has CHD/stroke. That's our definition.
And all of these probabilities and reduction percentages relate to that definition, not to a definition of CHD/stroke that says you have CHD/stroke whether or not you have lung cancer.
So all of these, by defining things that way and doing the analysis consistently, all of these reductions are appropriately prorated for the fraction of, small fraction of people in the lung cancer group who also have CHD/stroke. And we've done that by definition.
Q. As we discussed, the third reduction leaves in the dollars for CHD/stroke to the extent that somebody has both lung cancer/COPD and CHD/stroke, right?
A. Right.

71

Q. And the how many smokers percentage was calculated by determining how many people who had lung cancer/COPD smoked, right?
A. No, that's not correct. It's determined by our definition. It's determined by our definition of the lung cancer/COPD which includes a certain number of people who have both.
Q. Are you saying that -- well, all of the people in the group have lung cancer/COPD, correct?
A. That's right.
Q. So if you said, does the percentage, how -- does the how many smokers percentage change at all because some of those people also had CHD/stroke?
A. It does in an appropriate way. That's the way the calculations work.
Q. How does, how does it change?
A. It reflects the reality.
Q. All right. Let me give you a hypothetical and see if you can tell me how it changes.
We've got a hundred people with lung cancer/COPD.
A. Yeah.

72

Q. And, and 90 of those people smoked at one time, so they're smokers as you've defined it, correct?
A. Yeah.
Q. And of those 90 people, 10 of them also have heart disease.
A. Yeah.
Q. Now, tell me how many smoker percentage comes

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

out to be something other than 90 percent.
A. Well, about the, that's the appropriate percentage, it seems to me. You have people who have lung cancer alone or lung cancer plus CHD, and they've calculated exactly the probability smokers versus nonsmokers of being in there and the proportion of smokers who are being in there.
Q. Right. But the percentage is 90 percent --
A. Yes.
Q. -- both ways, right? Whether you have, whether people have CHD/stroke or don't, correct?
A. Well, certainly, but what happens when you do the actual calculation is that other things change as well. The people who have both have different smoking characteristics than

the people who have just one.
And you take those into account by defining the group and then consistently calculating the probabilities.
Q. You don't do a separate calculation for people who have both, do you?
A. No.
Q. Mr. Silfen suggests that the record is a hash, and so for that purpose I'm going to try to clear it up.
In the hypothetical I gave with the hundred cases of lung cancer/COPD and 90 smokers have lung cancer/COPD, the how many smokers percentage is going to be the same whether or not any of those smokers also have CHD/stroke, isn't it?
A. I apologize to do this, but would you mind doing that once more?
Q. Sure, the hypothetical is as follows.
A. Okay.
Q. Assume that there are a hundred people with lung cancer/COPD.
A. Right.
Q. Assume that 90 of them smoked.
A. Yes.

Q. Is the how many smokers percentage ever going to be anything other than 90 percent whether or not the smokers also had CHD/stroke?
A. Well, I, I don't know quite what you mean by "ever."
But in my calculations here, if the numbers were as you described, then the smoking fraction would be 90 percent for that group.
Q. And that would be true whether or not they also had CHD/stroke, any of those people.
A. But when I do the calculation, some of the people did have CHD/stroke, and it's those people that I'm accounting for.
Q. Okay. I just, I just really want an answer to the question posed, and I'm not sure I'm getting it cleanly.
In the hypothetical given --
A. Yes.

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support http://www.industrydocuments.ucsf.edu/docs/grfl0001

Q. -- the how many smokers percentage is 90 -- let me do it in two steps. This is the best way to do it. Let me start over.
Hundred cases of lung cancer/COPD --
A. Okay.
Q. -- are you with me?

75

A. Yup.
Q. Ninety percent of the people who are identified as having lung cancer/COPD smoked.
A. Yes.
Q. What is the percentage, what is the how many smokers percentage in that hypothetical?
A. Oh, wait a minute. I'm sorry, I just feel the need to be careful here.
When we're -- when you say "lung cancer/COPD," are you talking as I've defined it? That is, having it regardless of whether you have the other condition --
Q. Yes.
A. -- or not? Okay.
Q. You've got it. You've got it or you don't. It doesn't matter what else you have or don't have.
A. Okay.
Q. Okay.
A. It's not exclusive.
Q. No.
A. Okay. All right, so. . .
Q. All right. So you've got a hundred people who have lung cancer/COPD and I don't care what else they have.

76

A. Gotcha.
Q. And 90 of those people are smokers.
A. Yes.
Q. What is the how many smoker percentage?
A. Ninety percent.
Q. All right. Now, you've got a hundred people who have got lung cancer/COPD. I don't care what else they have. Ninety of them are smokers, and of the 90 smokers 10 also have CHD/stroke.
What is the how many smokers percentage?
A. That would be 90 percent.
Q. Thank you. Now to the extent that dollars remain in the lung cancer/COPD analysis for people --
A. Yes.
Q. -- who had also CHD/stroke, those dollars are subject to the how many smokers percentage for lung cancer/COPD, right?
A. Yes.
Q. And that percentage is higher than it is for CHD/stroke, right?
A. Yes.
Q. Does that seem fair to you?
A. It seems reasonable to me.

77

Q. Why?
A. You're taking into account whatever average differences there are between people who have one, the other or both and done it in a

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://industrydocuments.ucsf.edu/docs/grfl0001

consistent way.
Q. Well, if you have had consistently put the people who have lung cancer/COPD and CHD/stroke in the CHD/stroke category instead, wouldn't the estimated smoking-attributable dollars be lower?
A. Well, the problem is all these numbers change if you redefine things like that. And they change in an appropriate way because you're taking into account how you define the two groups, and all of these percentages are, in a sense, automatically prorated.
Q. Didn't we just go through that for the how many smokers percent?
A. I, I've frankly don't see any, any consistency in anything that's been said here.
Q. Well let me ask you this: you can be consistent in your calculations by putting individuals who have both lung cancer/COPD and CHD/stroke into the CHD/stroke category,

right?
A. Yes.
Q. And if you did that your damage estimate would change, wouldn't it?
A. I would assume that it would move in one direction or another, yeah.
Q. Do you have any idea which direction it would move in?
A. No, I haven't thought about that.
Q. The June 2nd report, as originally submitted, says that the third reduction was computed in the NMES data set, correct?
A. That's correct.
Q. But in fact, the third reduction was computed in the claims data, wasn't it?
A. In the core model, it was the claims data. And I understand that some corrected text was given to you.
Q. That's right, I'm not trying to, to make -- I'm just trying to establish the predicate. Did you ever compute the third reduction using the NMES data in the core model?
A. I don't remember ever doing so.
Q. Do you know why it was written, then, that you did it that way?

A. It was an editorial mistake. I think originally that text was down with the refined model and it didn't get changed when the text moved around.
Q. Should it make a difference if the third reduction is computed using the NMES data or the claims data?
A. I would imagine it would make a difference. Therefore, we were careful to make the appropriate choice.
Q. Is it clear which choice is appropriate here?
A. I think so.
Q. And I take it since you did it in the claims data that you think that that was the appropriate choice, right?

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf Courtesy of http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

A. Yes.
Q. Why was that the appropriate choice?
A. There are a number of reasons. One is that the core model is, in part, a check on the refined model. And such checks are much more powerful and meaningful if, all else being equal, you use different sources of information. So if it were a tie between NMES dollars and claims dollars, then we'd use claims dollars for that reason.

80

In addition, as with most sources of the data, there are strengths and limitations to both the claims date and the NMES data. The NMES data are very strong in that they allow the refined reduction with all of the control for demographic characteristics and the other things in the refined model.

The strengths of the claims data are that they are the actual average dollars from these programs in Minnesota during the time period, although we can't separate them out according to these other characteristics.

So, and a core model being a simple model and the fact we're not going to rely on these other characteristics makes the claims dollars a more appropriate choice. It exploits the strength of that data to yield a more appropriate estimate.

Q. In the core model, the third reduction doesn't distinguish among individuals or even groups of individuals based on their smoking status, right?
A. I'm sorry.
Q. The third reduction does not distinguish among individuals or even groups of

81

individuals based on their smoking status.
A. That's correct.
Q. Does the core model, in effect, assume that smokers currently treated for a tobacco-related disease have expenditures that are the same as nonsmokers who are currently being treated for that same category of disease?
A. I would characterize it that it assumes that using the same average for both is a reasonable approximation to reality.
Q. And it also assumes that using the same expenditure total for smokers and nonsmokers without the disease is a reasonable approximation of reality, right?
A. Within the goals of the core model here, yes.
Q. And in part, the need to make that assumption, those assumptions, was dictated by the choice to use the claims data, right?
A. It was certainly connected to the choice to use the claims data, yes.
Q. I mean, if you had -- the claims data doesn't have smoking information, right?
A. That's correct.
Q. So you had to use the average expenditure of

82

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

a person with the disease and the average expenditure of a person without the disease whether or not that person smoked.
A. That's correct.
Q. But NMES does have smoking information, right?
A. That's correct.
Q. So if you had compared, you, you -- well let me ask it this way: have you compared the costs of smokers and nonsmokers in NMES in your different categories of diseases -- follow me?
Let me try it one more time. Have you compared expenditures for persons with a current tobacco-related disease in NMES by smoking status?
A. I did a brief calculation like that subsequent to your expert reports.
Q. And were the expenditures the same?
MR. LOVE: I object. This gets into work product.
MR. BIERSTEKER: You know, I, you guys have asserted this objection in the Leonard Miller deposition. And I don't really want to have a fight about it, but I

have a very hard time understanding how analyses done by an expert in connection with a report given in this case is going to be work product. I really do.
BY MR. BIERSTEKER:
Q. Have you compared expenditures by smokers and nonsmokers without a current tobacco-related disease to see if their expenditures were approximately the same?
A. Say that again.
Q. Have you compared the expenditures of smokers and nonsmokers without a current tobacco-related disease to see if their expenditures were approximately the same?
A. That's really done in a refined model.
Q. I'm sorry, what?
A. That's really done in a refined model.
Q. Yes but not in NMES, right?
A. I'm not sure what you mean. The. . .
Q. Well --
A. What's driving that is NMES figures.
Q. Well, in other words, you estimate an equation in NMES and then apply it to the Minnesota BRFSS data, right?
A. Yes.

Q. Okay. It's not a simple calculation from the NMES data, is it?
A. It's a calculation.
Q. It's not going into NMES and looking at the people who, who do not have a current tobacco-related disease and figuring out the expenditures by smoking status.
A. Just doing simple averages? No, it's not doing simple averages.
Q. If you had done the third reduction using the NMES data in the core model, any differences

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://industrydocuments.ucsf.edu/docs/grfl0001

in expenditures between smokers and nonsmokers with the same disease status could have been taken into account.
A. That's correct.
Q. In some ways, this lawsuit is all about smoking, isn't it?
A. I would at least admit that it's a germane issue.
Q. Thank you. In coming back to the rationale as you articulated for doing the third reduction in the claims data, why wouldn't it be superior to use NMES than to take smoking status into account in making that reduction?
A. Well, for the reasons I've already stated.

Plus the additional one that I believe to the extent any error is introduced into the approximation due to not having smoking information, it would tend to give a higher reduction, all else equal, for the dollars reduction. That is, more dollars taken out -- excuse me, now I'm getting confused here.
Q. Try it one more time.
A. If, because in general without smoking and without the major diseases, the average expenditures for nonsmokers are lower than those for smokers based on the refined model and the results that go into that.
If we use the approximation that's included in the core model, there would be less of a reduction using the NMES data than the data we used. And hence, using that approximation should favor the Defendants.
Q. In fact, though -- well, have you read Dr. Wecker's report?
A. I glanced at it.
Q. Pardon me?
A. I've glanced at it.
Q. Did you read it?

A. I read parts of it.
Q. Did you read the part where he discusses the analysis of the public aids set, subset of NMES?
A. I don't recall.
Q. Have you examined differences in expenditures between smokers and nonsmokers and the public aid subset of NMES among individuals who have a current tobacco-related disease?
A. I thought I already answered that.
Q. Well, I'm sorry. I'm not, this question is different because this relates to the public aids subset of NMES.
A. Oh, I'm sorry.
MR. LOVE: Do you have the question in mind?
THE WITNESS: I would appreciate your restating it.
BY MR. BIERSTEKER:
Q. Sure. I, these are -- I've got to tell you, these are hard issues to deal with and I have difficulty framing short questions.

http://legacy.library.ucsf.edu/tid/nqq07a00/pdf Courtesy of http://industrydocuments.ucsf.edu/docs/grfl0001

Let me try again. Have you examined the data to see whether there are any differences in expenditures between smokers and

87

nonsmokers in the NMES public aid subset who do not have a current tobacco-related disease?

A. Well again, I think their refined model, the diminished health part does exactly that.

Q. No, but my question was, have, have you computed the simple averages that we've talked about that you would have done in the core model if you'd done it in the NMES data set?

A. That is the same answer as before. I did that subsequent to those reports.

Q. Isn't it true that never-smokers without a tobacco-related disease in the NMES public aids subset always costs more than smokers without a tobacco-related disease?

A. Oh, I apologize. I have -- when you said the averages as in a core model, that wasn't a set of averages in the core model. In fact, I have not made that calculation.

Q. You haven't look at the simple average expenditures of smokers and nonsmokers without tobacco-related diseases in the NMES public aid subset.

A. No, I have not.

88

Q. If it were the case that the never-smokers without a tobacco-related disease always cost more than the similarly situated smokers, wouldn't that mean -- well, are you with me so far?

A. I think so.

Q. Okay. In that instance, wouldn't the use of the average person without the disease tend to increase the damage estimate?

A. What do you mean by "similarly situated"?

Q. They don't have the disease. And they're the same, gender and insurance type.

A. Same age, same gender, same insurance type.

Q. Same disease status without.

A. Same disease status.

Q. Without. Never-smokers always cost more in the age groups to which the core model is applied.

A. And that's, and you're, and you're asserting that that's true both with the disease and without the disease?

Q. Well, right now we're just dealing with without. But --

A. Just --

Q. -- yes.

89

A. -- without.

Q. It is.

A. And then the question is?

Q. Doesn't that tend, doesn't, then, the use of the average person with the disease to do the third reduction tend to increase the damage estimate?

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf Digitized by the Internet Archive in 2014 http://www.tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

A. Well, if I had done it using NMES under all those assumptions then many other things might have changed.
If that were the only thing that I changed, then there would be a tendency to, the third reduction would not have been quite as great.
Q. Don't you mean that the third reduction would have been greater? The percentage, the percentage would have been not as great and the damages would have been lower, is that right?
A. The, the dollars that would have come out as attributable would have been lower.
Q. Right. So the damage estimate would have been lower, right? Under --
A. Given --
Q. -- under all the assumptions.

A. -- all the assumptions.
Q. Given all the assumptions, the dollar estimate would have been lower, right?
A. Yes.
Q. The core model uses average expenditures for people in one of the disease -- well, let me, let me back up.
The core model uses average expenditures for persons with the disease, correct?
A. Yes.
Q. And in the CHD/stroke version, it would then use average expenditures for people having any one of the diseases included in that category, right?
A. Yes.
Q. So it assumes that the average expenditure, say for a person with a peptic ulcer, is the same as the average expenditure for a person with coronary heart disease, right?
A. No.
Q. Why doesn't it assume that?
A. It just -- what it assumes is if you take the average expenditures for this group it's a reasonable estimate of the average expenditures.

Q. If you had estimated smoking-attributable expenditures separately for each disease in the CHD/stroke category rather than doing them collectively, would the estimate of damages have been the same?
A. I haven't done that calculation.
Q. Oh.
A. I don't know.
Q. Is there any reason theoretically why they should be the same?
A. Absolutely identical? I would be surprised if it were absolutely identical.
Q. Do you have any idea whether the damage estimate would be lower or higher if you estimated damages separately for each of the diseases in the CHD/stroke category?
A. None whatsoever.
Q. Have you ever estimated -- we spoke earlier

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support: http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

about the list of major tobacco-related diseases employed in the core model and also in the refined model being somewhat different than the list that the Surgeon General has presented, right?
A. Is your question did we speak earlier of it?
Q. Well, let me just ask the question and then

92

Mr. Love can object it's been asked and answered.
Isn't the list of major tobacco-related diseases used in your analyses different in some respects from the list that the Surgeon General has presented in his reports?
A. Yes.
Q. Have you estimated smoking-attributable expenditures for all of the diseases identified by the Surgeon General together?
A. Together?
Q. Yes.
A. Well, in a sense that's what the refined model does.
Q. Well, the refined model, the disease specific portion of it is limited to the diseases that you have identified, not those identified by the Surgeon General, right?
A. That's correct.
Q. My question is, have you done a disease specific analysis like that done with the core model for the diseases that the Surgeon General has identified as being associated with smoking?
MR. LOVE: You mean just those

93

diseases?
BY MR. BIERSTEKER:
Q. All of those diseases and no others.
A. And, and by "disease specific," you mean?
Q. Well, your core model is disease specific.
A. Yes.
Q. Current treatment is a variable. The refined model has two portions that are disease specific where current treatment is considered --
A. Yes.
Q. -- correct? That's what I mean.
A. I'm sorry, I'm missing something here.
Q. Have you done an analysis similar to that done in the core model using as, your diseases, all of the diseases identified by the Surgeon General and no others?
A. No.
Q. And if you did that, do you have any idea whether the estimate of damages would be the same as that which is presented in your report?
A. Well, I would think that would be, first of all, as far as I can tell, an inappropriate way to estimate damages.

94

And since I think the estimate in the report is appropriate, I guess I would think they would be different.

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Digitized by http://industrydocuments.ucsf.edu/docs/grfl0001

Q. Why, why is that inappropriate?
A. You're talking about very different kinds of diseases.
Q. Well, aren't you talking about very different kind of diseases in the CHD/stroke portion of the core model?
A. You're talking about different diseases.
Q. Well, aren't you talking about peptic ulcers and coronary heart disease and cerebral, vascular disease, oral cancers? There's quite a mix of diseases in that group, isn't there?
A. There's a mix.
Q. How does that disease mix differ in a qualitative way from the list of all the Surgeon General's diseases?
A. Well, let me clarify one thing. I don't know exactly what the list of Surgeon General diseases is, and we started down this path by asking if I had done analysis.
And so having said that, to be strictly accurate, if I were to say that the exact

list on the Surgeon General's Report were included, that it's inappropriate, I don't know, because I haven't looked at those in the way that we just said.
Q. If in a -- well, let me say it this way: if the incidence of all of the Surgeon General's smoking-related diseases for a particular age and gender and insurance group in NMES were greater among the never-smokers, are you with me?
A. Uh-huh. Yes.
Q. Then, then the SAF for that particular age gender group, using the core model, would be negative, wouldn't it?
A. I couldn't really say anything about that --
Q. Well --
A. -- without nothing more about the diseases.
Q. Well, isn't it true that the only variable in the core model that differs with smoking status is the variables that have to do with the incidence of disease?
A. The incidence of disease? Yes, on an annual basis.
Q. All right. And so if in a particular age, gender and insurance group, the incidence of

the disease set being analyzed is greater among never-smokers, wouldn't the SAF be negative?
A. The diseases that are typically mentioned that are outside these groups are so different that I'm not sure I would ever apply an incidence measures in the --
Q. Now we're back to appropriate, right?
A. Seems to me that's what we want to be.
Q. I thought we just retreated from that.
Well, I just want to understand that if it's the case, what the result would be. If it's the case that within an age, specific age, gender and insurance category group the

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://industrydocuments.ucsf.edu/docs/grfl0001

incidence of disease is greater among never-smokers than among ever-smokers, then applying the core model to that group of diseases would result in a negative smoking-attributable fraction, wouldn't it?
A. There may be other things that would bear on that. So I don't know.
Q. Doctor, what else could possibly bear on it? We've already established that the only variable that changes in the core model with regard to smoking status is the incidence of

disease numbers, right?
A. Well, if, if you're analyzing data in a world in which those incidences (sic) are different, then these dollars one would expect are going to be different too. I don't know what the net result would be.
Q. Yeah, but whatever the dollars are, they're the same for everybody whether they smoke or not, right?
A. Ahh --
Q. In the core model --
A. Yes.
Q. -- the expenditures for the average person with the condition, correct?
A. Yes.
Q. And it's the same whether you smoke or not, it's just the average.
A. That's what's used, yes.
Q. And the same is true when you come to the how many extra dollars computation for a person without the disease, there's no distinction by smoking status, right?
A. That's correct.
Q. Okay. So the dollars are the average, whatever the average is; it could be a

hundred dollars, it could be a thousand dollars, right?
A. That's right.
Q. And that doesn't change whether you smoke or not, it only changes whether you had the disease or not, right?
A. That's right.
Q. Okay. And if never-smokers happen to get a, a specific category of diseases at a greater rate than smokers of the same edge -- age, gender and insurance group, then the SAF, if you estimated it using the core model, would be negative, right?
A. My problem is that since I don't think that's an appropriate calculation, I don't know as I would use the word "SAF" on it. You could do arithmetic here.
Q. Well, if you did the arithmetic, the SAF would be negative, wouldn't it?
A. I just said, I don't think I would -- I would not want to put that forward --
Q. I --
A. -- without knowing a lot more and say, this is a SAF.
Q. I know. But the benefit of, of the position

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://industrydocuments.ucsf.edu/docs/grfl0001

that I'm in is I get to ask you things and what the results would be even if you wouldn't have done them as your first impulse.

If you did the math in the hypothetical I gave, the resulting smoking-attributable fraction would be negative, wouldn't it?

MR. LOVE: I'll object, asked and answered. But you can answer.

MR. BIERSTEKER: It hasn't been answered.

THE WITNESS: Well, I, I think it has. I don't think I would call that a SAF. It would be misleading to call it that.

BY MR. BIERSTEKER:

Q. Is it impossible -- why would that be misleading?

A. Because the core model and the calculations look specifically at diseases that do not commonly occur and have significant health effects related to simply having the disease or not having the disease.

Q. And isn't that true of every disease that the Surgeon General says is associated with smoking?

A. Not necessarily.

Q. Which ones do you think the Surgeon General has identified that don't fulfill those criteria?

A. I, I said before, I don't know exactly what the Surgeon General's list is.

Q. So you don't know the answer to that question.

A. That's right.

Q. And so you can't say that applying the core model to all of the diseases identified by the Surgeon General, and only those diseases, would be inappropriate, can you?

A. I would say that it's inappropriate without having investigated those diseases.

Q. Why? Why is it inappropriate?

A. Because I know that many diseases do not have the characteristics I just mentioned. And I would like to see whether they are on the Surgeon General's list or not.

Q. Well, I'm only including diseases identified by the Surgeon General as being associated with smoking.

So why would it be inappropriate to conduct the core model analysis on all of

those diseases and only those diseases?

A. If they are similar to other lists of diseases, then they include diseases, smoking-attributable diseases, smoking-caused diseases that I have seen, and they include diseases which are dramatically different from the ones that we isolated in the core model which is precisely why we isolated them.

Q. Which ones are dramatically different from

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Stanford http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

the diseases that you have included in your list of major tobacco-related diseases?
A. Common colds.
Q. The Surgeon General includes common colds on his lists of smoking-related diseases?
A. I don't know. That's what I just told you.
Q. I know. And the bottom line is you can't say that it would be inappropriate to apply the core models' methodology to all of the diseases identified by the Surgeon General as being associated with smoking and only those diseases, right?
A. Well, I --
MR. LOVE: I'll object, asked and answered.

THE WITNESS: I can't say that it's or appropriate inappropriate.
BY MR. BIERSTEKER:
Q. Fine. Okay. You can't say that it's appropriate or inappropriate, right?
A. That's correct.
Q. Doctor, if the cost of smokers with lung cancer/COPD in a particular age, gender and insurance group is less than the cost of never-smokers in that same age, gender and insurance group without the disease -- are you with me?
A. Would you mind doing it once more?
Q. Sure. I want you to assume that the cost of smokers with lung cancer/COPD --
A. Yes.
Q. -- from the NMES data --
A. From NMES.
Q. From NMES. In some age, gender and insurance groups is less than the cost incurred by never-smokers in those age, gender and insurance groups who do not have lung cancer/COPD --
A. Yes.
Q. -- are you with me? In that instance isn't

the SAF negative?
A. But I don't use NMES dollars in the core model to compute the SAF.
Q. I know. All right. Forget where the data come from. If that were what the data showed, wouldn't the SAF be negative?
A. That depends on how you calculate it.
Q. Well, you can change -- I'm applying your method.
A. Well, in my method --
Q. Just as you used it.
A. Well, I don't think you are. In my method, there were certain groups in which, if you simply took the NMES data, you would say that a hundred percent of the expenditures were attributable to smoking.
And in my method that was taken as an indication that some correction ought to be applied to the NMES data to not take a hundred percent.
So you have to talk about what kind of

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

corrections you're going to make like that. Just, I mean, there's one that lowered the tobacco attributable expenditures from what, just simple use of the data would to reflect

104

a reasonable use of the data.

So to answer your question, I would have to get into where did they occur and all the kinds of things that led to this kind of correction to again come up with a reasonable estimate if you're going to apply my methodology.

Q. I understand if you ignored what the data show that you could avoid the result.

But what I'm asking is, if the data show that smokers with lung cancer and COPD cost less in some age, gender and insurance groups than never-smokers without the disease and you applied the method, taking that fact into account used in your core model, wouldn't the SAF be negative?

MR. LOVE: I'll object, asked and answered.

And also confusing as to what you mean by "the method."

THE WITNESS: I, I honestly don't have anything to add to my previous response.

BY MR. BIERSTEKER:

Q. Well, you can't, you can't do that math?

105

A. I, same answer.

Q. Well, it's a different question. I don't know how the same answer is responsive.

A. Well --

Q. Can you do the math or can't you?

A. Try it again. Do what math?

Q. You got a situation where the smokers with the disease cost less than the never-smokers without it. And if you do the third reduction in that way, doesn't the SAF become negative?

MR. LOVE: I object, asked and answered.

THE WITNESS: Well again, I would have to say that what I call a SAF coming out of this calculation is a reasonable estimate based on everything you have in the data.

And to just simply go in without taking into account the kinds of things I've just been talking about, I don't know that it's appropriate to call that a SAF.

BY MR. BIERSTEKER:

Q. So it's not appropriate to call it a SAF whenever the results aren't what you

106

hypothesize they should be going in?

A. Absolutely not.

MR. LOVE: Now you're arguing with witness, misstating his testimony.

BY MR. BIERSTEKER:

Q. I really would appreciate an answer to the

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support: http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

question I asked. All right?
A. Well, try it again.
Q. And putting aside whether you think it would be appropriate to do it or what you would call it, all right?
Isn't it true that if smokers in a given age, gender and insurance group with lung cancer/COPD spend less than never-smokers in that same group without lung cancer/COPD, and if you calculated the dollars attributable to smoking in the same way that you did using your core models methodology, the third reduction, that the resulting percentage would be negative different?
MR. LOVE: I object again. It's been answered several times.
THE WITNESS: I, I don't know what I have to add. The author's methodology has to be taken as a whole to come up with

appropriate answers.
BY MR. BIERSTEKER:
Q. You can have your first two reductions be whatever you want them to be.
If the last with reduction is a negative percentage, the overall result is negative, right?
A. No, I, I -- in the context we're talking about, it would depend on whether, based on the other data you have, that you considered that to be a, a reasonable use of the data overall to come up with an overall reasonable estimate.
Q. Fine. You just refuse, you would refuse to do the math, right?
A. I don't know what math you're talking about. You're talking about the method, the methods of the core model. That's a set of methods and it's a set of calculations.
Q. Doctor, if I multiply two times three times negative four, the number's negative, isn't it?
A. I would agree with that.
Q. Terrific. And if you subtract from the cost of a smoker with the disease a higher number,

then the third reduction percentage is going to be negative, right?
A. If, in the context of reasonable use of the data as a whole, as I've said, you came down to a cell and you were going to calculate for use in this model a reduction like the third one that consisted of average dollars with, minus average dollars without, over average dollars with and the average dollars without were greater, then that particular ratio would be negative.
Q. Thank you.
MR. BIERSTEKER: I think we need to mark another exhibit. This one, I think, will be 3602, and it's a copy of the body of the June 2nd report you jointly submitted with Doctors Zeger and Miller.

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf Courtesy of http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

MR. LOVE: Which one again is it, I'm sorry? The report.
MR. BIERSTEKER: Yes, what I've referred to as the report.
While, that's okay, this doesn't have to be on the record. Well, it does? All right, fine. I was going to ask about lunch.
MR. LOVE: 12:30?

MR. BIERSTEKER: 12:30, that would be fine, yes. I'm sorry.
(Defendants' Deposition Exhibit 3602 was marked for identification.)

BY MR. BIERSTEKER:

Q. Doctor, the reporter has marked as Exhibit 3602 the text of the report you jointly submitted with Doctors Zeger and Miller. Do you see that?

A. Yes.

Q. And Page 19 of that exhibit discusses three screens that were used to identify individuals in the claims data who were currently being treated for one of your major tobacco-related diseases, right?

A. That's correct.

Q. And as I understand it, there were three of those screens, right?

A. That's correct.

Q. The first screen was an age screen, right?

A. Correct.

Q. And you assumed that nobody under 40 years of age got COPD because they smoked, right? That's the effect of what you assumed.

A. That's the effect --

Q. Okay.

A. -- of fairness on that.

Q. And the effect of what you assumed was that nobody got any of the other major tobacco-related diseases under the age of 35 because they smoked, right?

A. I believe that's correct, yes.

Q. And the rationale for that was that the occurrences of those diseases at relatively young ages is a pretty rare phenomena, right?

A. Yes. That's, yeah.

Q. And the second screen that was used was the so-called lab and x-ray screen?

A. Yes.

Q. And why don't you explain for me how that screen worked.

A. If in the claims records there was a dollar amount associated with a medical encounter that was identified as being a lab or x-ray encounter, then we ignored those ICD-9 codes.

Q. And why did you ignore ICD-9 codes for lab and x-ray encounters?

A. Because sometimes for lab and x-ray encounters the coding on the bill would be

for possible lung cancer, for example, or rule out lung cancer. It does not

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf Courtesy of http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

necessarily in all circumstances mean a diagnosis of lung cancer.

Q. And the last screen was the independent confirmation screen?

A. Yes.

Q. And I'm not sure exactly how that worked. Why don't you tell me how that worked.

A. Well, having ignored ICD-9 codes -- well, we take out people, we would never classify someone under 35 into what we call the major currently treated diseases. So those we ignore. And the codes associated with lab and x-ray work we ignore, as I say.

Then for the rest of the codes we look at the billing history over time of an individual. And, for example, if they have one ICD-9 code that would put them in our currently treated lung cancer group, and that's the only code, then they are not put into that group.

If they have a second code during that year but at a different visit or with a different place of service then they would.

You need two codes of that sort to appear before a person is put into the currently treated lung cancer group.

Q. All right. Now the part -- I think I'm with you so far.

But those two reports of treatment for lung cancer or COPD also have to occur within a given time period, is that right?

A. Yes.

Q. Explain how the time period worked. The example you gave only dealt with one year, right?

A. That's right.

Q. Okay. How, but, in fact, it was a two-year period you looked at?

A. It was a two-year moving window.

Q. All right. That's what I don't get. Why don't you run that past me, please.

A. Okay. Let's take a person in 1990 and everything else as I just described. If they have a lung cancer diagnosis in 1990, and that's the only one in 1990, and they have a lung cancer in 1991 as well, both 1990 and '91 they would, the expenditures in that year would be put into our currently treated

disease group.

Q. If the person had an expenditure for lung cancer in 1990 and in 1989, then he, all of his expenditures for 1990 and 1989 would be put into the lung cancer group, right?

A. Yes.

Q. If the person had an expenditure in 1990 and in 1992 --

A. Then we would ignore -- neither of those years would go into our currently treated group.

Q. How did that moving two-year window work for the last year and the first years for which

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://tobaccodocuments.ucsf.edu/docs/grfl0001

you had claims data?
A. We still applied the same stricture, so in a sense it's a much stricter criteria in those last two years, and we don't count as many lung cancers as perhaps we should if we'd made some adjustment.
Q. Fine, I understand.
Do you think it improves the reliability of your identification method to include these three screens?
A. I think it improves our reliability and greatly increases the probability that to the

114

extent our estimate is off one way or the other, doing these screens would tend to make it low.
Q. It would tend to make the pot of money to which the reductions are applied lower, right?
A. That's correct. But there are much higher SAFs in those groups than in the diminished health status model.
Q. Right. But these screens have no effect on the SAFs, themselves.
A. That's correct.
Q. Were these same screens used to identify individuals in the national medical expenditure survey data who were currently being treated for a tobacco-related disease?
A. In the national medical expenditure survey, there was a somewhat different process. And I believe another effect of these screens is to make these data more similar to the national and medical expenditure survey data.
Q. Well, what process, or did you use the same screens in the national medical expenditure survey data or not?
A. They wouldn't have been applicable.

115

Q. Well, you could have not used lab and x-ray diagnoses. That surely you could have done, right?
A. I don't know that that information was available the way NMES was compiled.
Q. Well, NMES -- I'm not sure I understand that at all.
NMES included dollars spent on laboratory services and x-rays, didn't it?
A. Yes.
Q. And it included ICD-9 codes for expenditures, didn't it?
A. Yes.
Q. Okay. Did you use those ICD-9 codes for lab and x-ray services in NMES to identify the individuals currently being treated for a major tobacco-related disease?
A. I don't believe that the ICD-9s were associated in that data with lab and x-ray expenditures in the same way. But they are in the claims data.
Q. Well, are there ICD-9 codes in NMES for laboratory and x-ray services?
A. They aren't really collected that way.

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf Courtesy of http://industrydocuments.ucsf.edu/docs/grfl0001

Q. All right. You seem to suggest that you used

different screening methods in the NMES data set to identify individuals who are currently being treated for a tobacco-related disease. Did you?

A. Different from.

Q. Those that you used in the claims data. Let me ask the question over. Did you use any screening criteria? How did you identify individuals who were currently being treated for a major tobacco-related disease in the NMES data set?

A. By whether or not they had one of the ICD-9 codes during the year there, or in the appropriate groups here.

Q. Did they only have to have one medical event with an ICD-9 code for the disease that you were looking at --

A. Yes.

Q. -- in order to be in the group?

A. Only one.

Q. Did it matter what that medical event was?

A. No.

Q. Did it matter whether the person, in the case of COPD, was in the age range of 30 to 40?

A. Yes. And I'm sorry I may have made an

incorrect answer before, but we did apply the age screens in NMES.

Q. Including the, the COPD screen that went up to age 40.

A. Yes.

Q. In the claims data, did you make any effort to investigate whether the diagnostic information recorded by the provider was correct?

A. Yes.

Q. What did you do?

A. Well, the data sets we worked on had gone through whatever audits the state applies, and any denied claims or any changes were upstream from the data that we used.

Q. Do the state's audits -- let me tell you some of the examples I have in mind and then you can tell me whether you think the state audit procedure addresses this. A patient might be listed as having lung cancer but it's possible that the doctor made the wrong diagnosis. The first question is, did you do anything to attempt to determine whether or not the doctor got it right when he wrote

lung cancer or heart disease or any one of these other diseases down on the form?

A. Well, the screens were certainly focused on doing that.

Q. All right. Now does the state, in its audits, do anything to determine whether or not the doctor might have made a mistake in writing down a particular diagnosis?

A. I don't know which, if any, of their audits

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Caution: http://industrydocuments.ucsf.edu/docs/grfl0001

would address a mistaken diagnosis of that sort.
Q. Now the state does do audit, audits for purposes of detecting fraud. The doctors will make a mistake, he just writes down lung cancer and there really never was lung cancer and he knows it, right?
A. That's correct.
Q. Did you do anything, other than rely upon the audits performed by the state, to examine the claims data in an effort to try to eliminate fraudulent claims?
A. No.
Q. Does the state audit procedure attempt to determine whether or not the treatment given to a particular -- or Blue Cross and Blue

Shield, I'm sorry I meant -- let me start over.
Did either Blue Cross Blue Shield or the state or both audit claims records to determine whether or not the procedure employed in a given instance was the least expensive appropriate procedure that should be performed?
A. The least expensive?
Q. Least, yes.
A. I don't know that that's part of the audits.
Q. And did you do anything to analyze that issue in the work that you've done in preparing these estimates?
A. No.
MR. BIERSTEKER: This is probably a logical place, gentlemen.
MR. LOVE: Great, okay.
MR. BIERSTEKER: Thanks.
THE VIDEOGRAPHER: The time is now 12:33, and we're going off the video record.
(The noon recess was taken.)
* * * *

AFTERNOON SESSION
1:30 P.M.
THE VIDEOGRAPHER: We're pack on the video record. The time is now 1:30 P.M.

CONTINUED EXAMINATION
BY MR. BIERSTEKER:
Q. Doctor, I wanted to just follow up on a few questions I had asked near the end this morning.
Did you take diagnostic information off the claims records for Blue Cross Blue Shield of Minnesota?
A. Yes.
Q. Okay. And did you evaluate the entries in the claims data for Blue Cross Blue Shield of Minnesota to determine whether or not the doctor had made any error in recording diagnostic information?
A. Not other than the kinds of thing we've been

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support provided by the Tobacco Industry Documents Library at UCSF http://tobaccodocuments.ucsf.edu/docs/grfl0001

talking about.
Q. Right. Would, would your -- you remember there were a line of questions I asked about fraud, for example, in connection with Medicaid. And you said you relied upon the

121

screens, the, the, the controls that the state had put in place but didn't do anything above and beyond that on your own.
Do you remember that?
A. Yes.
Q. Would the same answer be true of Blue Cross Blue Shield?
A. Yes, I believe so.
Q. Did you make any use of the procedure codes that are included in the NMES data?
A. Procedure codes.
Q. Yes.
A. In the NMES data.
Q. Yes.
A. I don't know what you're talking about.
Q. You don't think there are procedure codes?
A. Well, I don't know if there are or not. I just don't know what you're talking about.
Q. If they're there you didn't use them?
MR. LOVE: Well --
BY MR. BIERSTEKER:
Q. Or do you not know what procedure, what I'm -- were there procedure codes in the claims data?
A. Yes.

122

Q. Okay. So you know what a procedure -- and did you use the procedure codes in the claims data in any way?
A. Yes.
Q. Okay. How did you use it?
A. You will recall that my second screen was for laboratory x-ray. In the state data, there's a category on their database.
That's not true at Blue Cross. So we used the diagnostic and imaging procedure codes to identify an encounter which, to which we applied the lab and x-ray screen.
Q. Did you use the procedure codes for any other purpose?
A. Only in general in examining dumps of, of billing histories for individuals to make sure that the billings looked reasonable and appropriate and sensible in terms of what was being done for what diagnoses and over what course of time to determine, among other things, that there hadn't been any mistakes in the computer coding, pulling things up and things of that nature.
Q. Did a medical doctor make that determination as to whether or not the stream of

123

expenditures seemed reasonable and appropriate, given the history recorded in the claims data for an individual?
A. Well, my answer wasn't directed specifically towards streams of expenditures but more

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support: http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

towards the general pattern of events. And I, I looked over those both with and without a medical doctor.

Q. What, what medical doctor assisted you in the process?

A. John Samet.

Q. And did you do that for each individual?

A. Oh, heavens, no.

Q. Did you do it for a sample of individuals?

A. Yes.

Q. How did you select the sample?

A. We used a random number generator.

Q. How large was the sample that you examined?

A. I don't know.

Q. Approximately. Can you give me a ballpark?

A. Well these, many of these were informal, and if there was some change in how we were running the computer, we might look at a few just to make sure that there was no evidence of anything gone awry. So I mean it's, it

would be in the, in the hundreds, probably, but I couldn't do any better than that.

Q. And again, if you could describe once more for me the, the purpose of this examination.

A. To make sure that what we understood from the layouts on the computer records, that is, what the computer people told us, were making sense after we read them.

And also to examine whether these screens that we've been talking about appeared to be working in a sensible fashion.

Q. We talked earlier about the age screens that you used.

I take it that the only effect of smoking on individuals under the age of 35 estimated by your models is the effect of diminished health status, is that right?

A. I think that would be correct.

Q. Is there any reason to believe that smoking's impact on health status, separate and apart from current treatment for disease, tobacco-related disease, would be different among individuals under 35 than it would be for individuals over 35?

A. I didn't get that.

Q. Okay. Is there any reason to believe that the impact of smoking, in terms of diminished health status, would be different for individuals under 35 than it would be for individuals over 35?

A. I really don't know.

Q. Would you expect them to be the same?

A. I don't think I have any expectation.

Q. Do you know what the results were in terms of the SAF from the diminished health care model for individuals 19 to 34 compared to what it was in the older age groups?

A. Nineteen to 34 in the diminished health status model.

Q. Yes, sir.

A. Compared to the older age groups?

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support: http://industrydocuments.ucsf.edu/docs/grfl0001

Q. Yes, sir.
A. It's, I imagine -- well, I know it's something I probably looked at at sometime in the past, but I couldn't recall what the results were.
Q. I take it from some of the earlier answers that you gave me that you are doing work now to respond to some of the work that defense experts have submitted with their reports, is

that right?
A. I've, I've done a couple things.
Q. Did counsel tell you what to do?
A. No.
Q. How did you decide what you would do or not do?
A. There was one statement in one of the reports that just struck me; I was curious about it. And those were the numbers I expressed this morning.
Q. Now in calculating the first two reductions within NMES in the core model, you put together people who were on Medicaid and other forms of public aid, right?
A. That's correct.
Q. Why didn't you distinguish between the two groups?
A. First of all, it was very little other public data.

And second of all, it was, in part this was a check on refined model. There was some interest in maintaining consistency there.

Q. Well, earlier today you told me it was an advantage in terms of doing a check on the refined model to use a different data set,

right?
A. That's correct.
Q. Okay. Here you're saying it's an advantage, I take it, to be consistent?
A. I believe my statement this morning was all else equal if it's a 50-50 call. And here it's clearly not a 50-50 call if you don't have very much public aid data other than -- excuse me, other public than Medicaid.
Q. Okay. Well, earlier today all else was not equal, though, right?
A. That's right.
Q. Because the methodology used in the core model differs from the methodology used in the refine model, right?
A. That's right.
Q. Is it still an advantage to use a different data set if you also change the methodology if all is not equal?

I'm sorry, no. Is it still an advantage in term of checking on the refined model to use a different data set if all else is not equal?

A. It can be.
Q. Was it in this instance?

A. I'm getting a little bit lost here. I'm not

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

sure what we're talking about with different data set, now.
Q. The third reduction having been done --
A. The third reduction we're talking --
Q. Yes.
A. -- about.
Q. Yes, the third reduction --
A. Okay.
Q. -- having been done in the claims data as opposed to the NMES data.
A. I think that was, that was definitely an advantage.
Q. Even, even though all else was not equal?
A. Yes.
Q. And why is that, separate and apart from it's more Minnesota specific which you've already given me?
A. It's more Minnesota specific. You mean why is it not equal, is that what we're --
Q. No.
A. -- addressing?
Q. Why is it still an advantage?
A. Why is it still an advantage.
Q. Yes.

A. Well, that's a perfectly sound reason.
Q. All right. Are there any others?
A. They take a different -- by using that data you have a different way of adjusting for changes over time.
And as you've taken the claims data and whatever changes in those ratios over time have occurred, then you've got an appropriate summary of that. Which is calculated a little differently from a summary that's calculated using the NMES data, which also takes into account a time in a different way. So you've got a comparison there.
To the extent that you also made allowances for more of a distinction if, indeed, there was one between GAMC and Medicaid.
Q. Were there differences between GAMC and Medicaid in terms of average expenditure, right?
A. There were some.
Q. I know it's probably a difficult thing to ask you but I'm go to ask anyway. And that is, do you remember what the differences were?
A. No.

Q. Okay. Did the ratio of expenditures used in the third reduction step change over time when you looked at the claims data?
A. It was not identical, of course, but it was surprisingly stable over that entire time period.
Q. Do you recall what the approximate range of fluctuation was?
A. No.
Q. Are, are the answers to these questions contained in the data that were produced to us?

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

A. To the extent that any of the programs existed, they are contained. A couple things like that might have just been run once on a computer screen to look at them and never really existed in any permanent form.
Q. So you're not sure.
A. I'm sure that if we have the programs that did that, you have them. I don't know, though, that they ever were saved in a permanent form.
Q. I take it there was a relatively small group of people in the NMES data set who were public aid other than Medicaid.

A. Yes.
Q. How were, were individuals on other forms of public aid in NMES identified?
A. Identified?
Q. Yeah. Was there a box where they checked other public aid or --
A. Yes.
Q. So the definition used in NMES was not poor or low income.
A. No.
Q. And what was the definition used in Minnesota BRFSS to identify individuals on public aid?
A. There again was a box.
Q. All right. So it was not based upon an income level?
Let me tell -- let me back up. My understanding is that the public aid people identified by you in Minnesota BRFSS were identified by looking at people whose income was less than two times the 1990 poverty level. Am I wrong?
A. I think you're incorrect. I think that was used for a couple of years when they didn't have, BRFSS didn't ask a question about insurance coverage.

Q. I see. Do you know if your computations of damages included damages for MinnesotaCare?
A. The calculations, our calculations did not include such numbers.
Q. Do you recall for which years you did not have direct BRFSS data? In other words, the person checked off a box saying other public aid?
A. No. I believe there were two years in the middle of the sequence we had where that was true but I couldn't, you know --
Q. As best --
A. -- I don't know.
Q. -- as best as you can remember, there were two years in which that information was missing?
A. That's my recollection.
Q. That's fair. Did you read the portion of Dr. Wecker's report in which he discussed the effect of using the income definition for public aid in Minnesota BRFSS?
A. Is that the part where he cites the number 1,200 percent?

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Digitized by http://industrydocuments.ucsf.edu/docs/grfl0001

Q. You've got it. Is that something you have checked?

133

A. No.
Q. Let me ask a more general question. You're examining some or all of the work product that was submitted by the defense experts, right?
A. Well, I read through some of it, as I think I said --
Q. And --
A. -- before. And that's. . .
Q. -- and you're also looking at the computer media that, that were produced?
A. I've looked at some of the computer media.
Q. Putting aside for the moment issues you may have about the interpretation of the results or even the appropriateness of what was done, have you so far identified any mistakes that the defense experts have made?
MR. LOVE: I'll object. I think we're getting into work product.
We let you go a certain way down the road to find the general areas he looked at, but to get into a, this isn't the time for a rebuttal to your expert reports.
MR. BIERSTEKER: Well, all right. Again, I don't really understand the

134

objection, but I'm not sure I agree. But it isn't worth fighting about at the moment.
BY MR. BIERSTEKER:
Q. Do you know what the eligibility criteria are for GAMC?
A. Not specifically.
Q. Do you know generally what they are?
Every time an expert says "not specifically," I have to ask generally. Do you know generally what they are?
A. I have a general notion, yes.
Q. What, what generally are they?
A. They're generally people who do not qualify for Medicaid but are generally low income and often are qualifying for GAMC because of a medical necessity.
Q. Have you done any comparison within BRFSS in the years for which you did have self-reported public aid information in comparison to the years where you used income levels as a surrogate?
A. I have not done such calculations.
Q. Has somebody else?
A. I don't know.
Q. Who do you think might have?

135

A. I don't know if Dr. Miller did or not, but. . .
Q. I want to switch gears for a moment and maybe ask you about the refined model. And if I'm going outside of an area where you feel comfortable giving testimony, please let me know. I know that's not one of the areas in which you specifically concentrated.

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://industrydocuments.ucsf.edu/docs/grfl0001

One of the variables used in the refined model is the probability that you're currently treated for a major tobacco-related disease, given that you're a never-smoker. I think that's in the second reduction.

Does that comport with your recollection?

A. Would you mind saying that --

Q. Sure.

A. -- once more?

Q. One of the variables you used is the probability that you're currently treated for a major tobacco-related disease given that you're a never-smoker.

A. You're saying that's a variable and there are --

Q. Well, it's a factor. It's not a variable,

necessarily, a factor.

A. Yes, that is a factor in the refined model.

Q. Okay. And is that the same thing as the probability that a smoker would be currently treated for a tobacco-related disease if he or she had never smoked?

A. Well, I don't think so quite. I, I think it's, and I think I answered this before with a core model.

Q. A similar question, yes.

A. The, it's, that probability is basically the probability that a similar smoker in the same year would have gotten, would have been treated for the disease in that year had they never smoked.

Q. In other words, if you keep other factors about, if, if you assume a smoker has a similar set of characteristics, such as overweight and the other variables used to calculate that probability, then the answer would be yes? But if a smoker doesn't have those same characteristics, the answer would be no?

MR. LOVE: I'll object.

MR. BIERSTEKER: Yeah.

MR. LOVE: I don't think that's his testimony.

MR. BIERSTEKER: You're, you're right. That was, that was an awfully bad way to do it. It might have been all right if we were sitting over lunch but in a deposition it probably doesn't cut it.

BY MR. BIERSTEKER:

Q. What did you mean in your response when you said "a similar smoker"?

A. Similar with respect to the kinds of factors that are in the equations for the refined model.

Q. My question may have been inartful but I think I basically got it right.

Doesn't that make it important, then, to compare smokers and nonsmokers to see if the distribution of those characteristics in the two groups are the same?

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support: http://www.industrydocuments.ucsf.edu/docs/grfl0001

A. No.
Q. Why not?
A. For these kinds of characteristics, there's generally so much overlap that it's, in the kind of groups we're talking about, that it's seldom the case that, that one needs to worry

138

in these kinds of statistical procedures about, about extreme cases that might affect things.
And in any event, early on in the proceedings, early on in our analysis, as I recall, there were numerous tables of just averages that did portray some of that information.
Q. What, that compared smokers and nonsmokers in the distribution of different characteristics?
A. That's what I recall, yes.
Q. These were just raw averages taken from what, the NMES data?
A. Yes.
Q. Do you recall what variables were examined?
A. Not entirely, no. But they were many of the ones that were in these refined models.
Q. Well, let me ask you another question that's similar to the series of questions we just went through and also parallels something we discussed yesterday with respect to the core model.
In the refined model that's disease specific, in the third reduction in that

139

refined model, there is a variable or a factor that's the probability that you are not currently treated for a tobacco-related disease given that you're a never-smoker.
A. Yes.
Q. And is that the same thing as the probability of not currently not being treated for a tobacco-related disease if a person who is an ever-smoker had never smoked?
A. I'm sorry, I'm going to have to ask you to say that again.
Q. Is that probability, the one used in the third reduction in the refined model --
A. This -- which probability are we talking about again?
Q. It's the probability not current treatment given never smoked.
A. Right.
Q. Is that probability the same thing as not current treatment if a smoker had never smoked?
A. I'm not sure what the difference is from what was asked before.
Q. It's, it's sort of the flip side; in, in some senses it's one minus, right? If the answer

140

is the same, that's fine.
A. Well, this -- okay, we're talking about probability of not being treated, now?
Q. Right.

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf Creative http://www.industrydocuments.ucsf.edu/docs/grfl0001

A. If I understand your question correctly, it is just one minus, and it's the same answer.
Q. That, I believe you do and I believe that's right.
MR. BIERSTEKER: Oh, I'm sorry.
THE VIDEOGRAPHER: This concludes the second videotape in Dr. Wyant's testimony. The time is now 2:02.
(A recess was taken.)
THE VIDEOGRAPHER: We're back on the video record. The time is now 2:08. This is the beginning of Tape Number 3 in Dr. Wyant's testimony.
THE WITNESS: Could I make a clarification? I was just. . .
BY MR. BIERSTEKER:
Q. By all means.
A. That occurred to me here. A couple questions earlier you were talking about public aid data and the BRFSS. And I believe I said that there were two years in which it wasn't

explicitly available, and so the low income proxy was used instead.
I'm, I'm less familiar with the application of the refined model to the BRFSS than the core. And I think there are some years in which that question was asked on BRFSS, but for some groups there was so little data that the low income status was used for those groups rather than direct BRFSS information.
Q. Well, now I'm, I'm unfortunately compelled to ask more questions.
Was the income surrogate used, then, for all years in BRFSS to define the public aid population?
A. No, I don't believe that's correct.
Q. In, is there any year for which there was no direct information on public aid status other than Medicaid?
A. Oh, I'm sorry?
Q. Was there any year in which there was no direct information on public aid status in BRFSS? Let's ask that question first.
A. And my recollection is there were two years in which there was no explicit public aid

information.
Q. Now when we've been talking public aid here, I don't know that we've been real precise. But what I meant to be asking about was public aid other than Medicaid.
A. Ahh. I don't believe that ever in BRFSS that there was a distinction between public aid and Medicaid.
And I understand how there would be some confusion here since -- I don't, well, let me say it slightly differently. I don't recall there being a distinction between Medicaid and other public aid on the BRFSS that is helpful.
Q. In those years in which only the Medicaid

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support: http://industrydocuments.ucsf.edu/docs/grfl0001

question -- well, in which -- let me back up.
In those years in which BRFSS asked the Medicaid question --

A. Yes.

Q. -- is, are the people who responded yes to the Medicaid question the only people in the public aid BRFSS group?

A. We're getting into a level of detail on the BRFSS where I'm not sure I trust my recollection totally. So I'm hesitant to

answer your question as it's posed.

Q. Let me tell you what I'm getting at and then see if you're able to help me.
I understand that where there was direct Medicaid information in the B-R-F-S-S, BRFSS, questionnaire that that information was used, right?

A. Yes.

Q. But GAMC isn't the same thing as Medicaid, right?

A. That's correct.

Q. Was there an effort made to define in the BRFSS group an analogue to the GAMC people?

A. I don't recall any effort that was distinct from Medicaid.

Q. That's fine, thank you.
We spoke earlier how the core model controlled for, among other things, insurance status, right?

A. Yes.

Q. Now in the refined model there are -- well, let me back up for a moment. The, the refined model, and I'm speaking, now, about the lung cancer/COPD and CHD/stroke portion of it, that portion of the refined model was

estimated on everybody in NMES, right?

A. We're talking about the probability part?

Q. Or level.

A. I believe that's correct.

Q. Now there were instances in particular age/gender groups where there was no insurance variable in the refined model, is that right?

A. Well, I think that's correct. But we're getting into a level of detail in the refined model that I'm hesitant to speak to off the top of my head.

Q. Okay. Well, let me ask the question maybe in a more general way and, and still kind of end up at the same place.
In those instances where there is no insurance variable, that means that the refined model, at least as to that age/gender group, wouldn't control for insurance status, right?

A. Well, if that variable is missing because it was found to be not significant in the sense there was a finding of no significance, there's nothing to control for.

Q. Well, but including a variable, does --

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Digitized by http://industrydocuments.ucsf.edu/docs/grfl0001

including a variable for insurance in a regression equation isn't the same thing as restricting your analysis to a particular insurance group, is it?
A. No.
Q. And, in fact, including a variable only partially controls for that variable?
A. Well --
Q. Let me, let me ask the question another way.
When you include an insurance variable in a regression, you control, you do not control for -- let me try this again.
How does estimating a regression only on a particular insurance category differ from merely including an insurance variable in the regression equation?
A. It depends on what else is in the regression.
Q. Assuming there are other co-variants, it doesn't really matter what they are, does it?
A. And if you run them separately in two groups, then you're, in effect, occluding interaction terms as well between the insurance variable and the other variable in the model.
Q. That's what I was trying to ask but couldn't find the words to do.

And to close the issue, estimating separately on a particular insurance group would account, would control more fully for differences in insurance status than merely including a single insurance variable, right?
A. Well, I'm not sure that in assessing these models that that's always correct. It would depend on the nature of the other characteristics and how much information there was about them.
Q. Could including the variable ever control more fully than estimating separately on the two groups, regardless of what the other variables were in your equation?
A. It could certainly control more reliably.
Q. Oh, really. Why do you think that?
A. If, for example, there was very little data on some characteristics on one side, one of these interaction terms could be very unstable.
Q. But you would know that when you'd estimate it, wouldn't you? Are there tests that you can do?
Let me ask the question one, one at a time. You would know that there was

instability if it were there, wouldn't you?
A. You could determine that if you applied appropriate checks.
Q. Now average health care expenditures were different in the lung cancer/COPD group than they were in the CHD/stroke group in the core model, right?
A. Average expenditures?
Q. Yes, sir.
A. I believe so.
Q. In the refined model, however, estimated

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Created: http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

expenditure levels didn't vary depending upon whether you were in the lung cancer/COPD or the CHD/stroke group, right?

A. I don't remember right now without looking more at their refined model how it dealt with that.

Q. Well, as I recall, and maybe this will jog your recollection, the refined model in both the probability and the level of expense equations had a variable, do you have a major tobacco-related disease, yes, no, but didn't distinguish between the two disease categories.

Does that refresh your memory?

A. I believe that's correct.

Q. And if that's the case, then the refined model doesn't distinguish between the two categories of diseases in terms of estimating probability or level of expense, right?

A. Well, no, I think the probability is different, as I recall the way the model is used for the first correction factor.

Q. Well, the conditional probabilities are different, yes, but the probability of expenditure, I think, is the same, is that right?

A. I, I'm just not recalling enough of the detail right now to be able to say.

Q. Well, let me ask you this: Dr. Miller was the person who concentrated on the refined model, right?

A. Yes.

Q. Are his answers to questions, then, about that model the authoritative answers?

A. I would presume so.

Q. Okay. There's one more detail, though, about the refined model I wanted to ask.

And the reason I'm asking, frankly, is I didn't understand Dr. Miller's answer, and I

want to see if I get an answer from you that I might have a hope of understanding.

And that was, why was the second inverses mills ratio included in the diminished health care model when it was estimated?

A. I asked him the same thing. It made general sense to me in terms of methods I've seen applied where there was sampling with a possible error either way.

Other than seeming generally reasonable in terms of other things I've seen, I did not get into the details of that calculation.

Q. Well, now I don't feel so bad. Thank you.

You might want to pull out Exhibit, I think it was 3602 but the main report.

There were a few instances in Dr. Miller's deposition where he deferred to you, as you have recently deferred to him in some areas, and so I wanted to ask you about some of those.

The first occurs on Page 14 of

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support: http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

Exhibit 3602. And that deals with the similarities between the Minnesota population and the national population?

150

A. Yes.
Q. And the Minnesota and the U.S. population were compared using two examples, as I recall, right? You used two different -- you compared -- well, let me, let me back up. You compared the Minnesota population and the U.S. population in terms of smoking prevelence, right?
A. Yes.
Q. And you also compared Minnesota and the U.S. population in terms of the distribution of payments across the medical service categories, right?
A. Yes.
Q. And by that we mean hospital, ambulatory prescription drugs --
A. Yes.
Q. -- home health and -- well, home health, right?
A. Yes.
Q. And the reasons these comparisons were made, as I understand the report, was to justify file extrapolating from national data to Minnesota data, right?
A. Well, these kinds of comparisons represent a,

151

they're among the demonstrations that could be made that such a extrapolation would be reasonable.
Q. Well, is that the reason why this discussion, why, why you did these analyses and why this discussion ended up in the report?
A. Yes.
Q. Was there another reason?
A. No.
Q. Under what circumstances would you conclude that the differences between Minnesota and the U.S. population were too great to permit an extrapolation?
A. I don't know. I really didn't consider that, since everything I've looked at is well within the bounds of what I would consider acceptable.
Q. I guess what I'd like to know is how you judge acceptable variation from unacceptable variation when comparing Minnesota and the national population.
Is there some sort of objective test that you use in order to do that?
A. I did not use such a test on these data.
Q. Is there such a test?

152

A. I'm not sure that there's any simple test that could be used in the present context.
Q. Do you have tests, whether simple or not, in mind that would be appropriate to use in this context?
A. Well, one of the tests is the one we performed by using the core model and the

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

refined model. The core model which used Minnesota data for significant portions, and the refined model which replaces portions with NMES data.
Q. Have you made any comparison between the Minnesota and the rest of the nation on factors other than smoking prevelence and the distribution of health care payments?
A. Yes.
Q. What other comparisons have you made?
A. I examined some, I believe they were CDC reports that listed rates by state. And there were a number of other health characteristics besides smoking on that report.
Q. Do you remember what they were or what the name of the report was?
A. Alcohol was one.

I think probably seat belt use. There were a number of other factors but I don't remember what they were. And I don't remember the name of the report.
Q. And were those comparisons made for any subpopulation in Minnesota? And by that I mean Medicaid or people who have private insurance and the U.S. population as a whole?
A. I believe they were done by age and sex, but those particular numbers were not by insurance status.
Q. Do you recall the name of the CDC publication or where it appeared?
A. No.
Q. Do you know if it examined -- well, what was the alcohol measure that was used, do you remember that?
A. No.
Q. Do you remember if it examined the percentage of people overweight?
A. I don't remember.
Q. You said it had rates by state. What did you mean by "rates"?
A. Well, if it were something like smoking where either did or you didn't, then it would give

you a percentage.
Q. I see. Did you do any comparisons at all to determine whether or not the relationship between the co-variates in your model were the same in the Minnesota Medicaid population as they are, say, in the U.S. general population?
A. I don't think so, no.
Q. Well, NMES is designed to be representative of the U.S. noninstitutionalized population, right?
A. That's correct.
Q. Have you compared within NMES the Medicaid group to the nonMedicaid group?
A. Well, certainly some of those comparisons are reflected in both the core model and the refined model.
Q. Well, in the core model you did it for

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

expenditures, right?
A. Well, I'm sorry, maybe I have missed your question.
Q. In the, in the -- the core model was done on the Medicaid subset in NMES, right --
A. Yes.
Q. -- by insurance status? And as we discussed

earlier, the refined model was estimated on the entire NMES insurance population sometimes with an insurance variable and sometimes without.
A. I believe that's correct.
Q. I guess my question is, have you compared the Medicaid and the nonMedicaid populations in the same way that your report presents a comparison of Minnesota to the U.S. population?
A. I don't think so.
Q. Now the NMES survey doesn't contain in it a single individual in a nursing home, right?
A. That's not quite true. It does contain some individuals who moved into nursing homes during the course of the year.
Q. And when that happened, weren't they dropped from the survey?
A. I believe the information is there, but they're not included in the full year sample.
Q. So they would only be included in the sample for the years in which they were not in the nursing home, right?
A. The months.
Q. I mean the months, excuse me.

A. Yes.
Q. Now the refined model, as I think we've discussed before but I'm not sure, was estimated on the NMES sample, the noninstitutionalized U.S. population.
A. Yes.
Q. But the relationships that we estimate there are then applied the to Minnesota Medicaid nursing home residents to estimate their expenditures for hospital, drugs, ambulatory care and I guess home health that are attributable to smoking, right?
A. That's correct.
Q. Have you compared the Minnesota Medicaid nursing home population to the U.S. population not living in a nursing home to see if there are differences in those two groups that might affect the validity of the application of the refined model to expenditures by nursing home residents?
A. Not that I know of.
Q. I want to switch gears a little bit and ask about the NHANES data. And again I'm not sure how deep your knowledge runs, so stop me if I should be directing these questions to

somebody else.
Did the NHANES or do the NHANES data contain an insurance status measure?

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

A. There is one but it's not consistent from year to year.
Q. Does it consistently identify people eligible for Medicaid?
A. No, I believe it does not.
Q. The nursing home analysis included in Exhibit 3602 was not done only for people, then, in the nursing home who are on Medicaid, right?
A. No, the analysis -- I'm not sure what you're asking. But the analysis presented in this report certainly was driven by people on Medicaid.
Q. Well, let me ask the question again. There was a computation of essentially average days spent in a nursing home in a given year based on the NHANES data, right?
A. That's correct.
Q. Okay. Was that computation made on everybody who was in the nursing home or only those people who were in the nursing home who were eligible for Medicaid?

A. It was on everybody.
Q. Have you compared in any data set the Medicaid and nonMedicaid nursing home populations to see if there are differences between them?
A. Medicaid and nonMedicaid?
Q. Nursing home populations.
A. No.
Q. If there were differences, could that affect the validity of extending an analysis done on all nursing home residents to nursing home residents eligible for Medicaid?
A. Not necessarily; it would depend on what the differences were.
Q. It might.
A. Is it possible? Yes.
Q. I would like to have an understanding of what data used in your analyses were imputed.
Do you know which variables were imputed in the different data sets?
A. This process worked basically as a, an estimation, not what I think a lot of statisticians call a imputation process. So I'm not quite sure how to answer your question.

Q. I'm not sure I understand the distinction you're drawing, so why don't you tell me what it is.
A. Well, you're using some methods to estimate the percentage of smokers in the Medicaid population in Minnesota. You're not necessarily going through the Medicaid population person by person to make an estimate and fill in, in some sense, an estimate of whether they smoke or not.
Q. It is not an imputation, in your view, if you somehow fill in by estimation? Is that -- have I got the difference right?
A. Well, the filling in is more an estimate of

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Digitized by the Legacy Tobacco Documents Library http://tobaccodocuments.ucsf.edu/docs/grfl0001

what's going on in the population in terms of a probability.

An imputation, at least in my sense, would go through and guess and say, this person smokes and this person doesn't and this --

Q. Okay.

A. -- person smokes.

Q. I'm defining it broadly. And I would include within the definition of "imputation" what you are describing as estimation.

160

Does that make sense to you?

A. I'm not sure.

Q. Well, I, could you identify for me, then the instances in which you imputed or estimated values that you did not have in your data sets?

A. I certainly estimated the percentage of smokers in the claims population. For that population we estimated the occurrence of the other controlling factors in the refined model with a few exceptions. Age, sex came directly from the claims data. Marital status, race.

Do you have what I've listed there?

Q. I think it was age, gender, marital status and race is my list.

A. I'm obviously going on memory here, but I think those are basically the pieces of information on the claim data that were estimated.

Q. Right. And the laundry list were, were the exceptions, right? In other words, you say you estimated the controlling factors used in the refined model, except age and except gender and except race.

161

A. That's correct.

Q. Were there any other values that were estimated or imputed into the claims data?

A. I don't recall any right now. I haven't really thought about it that way so I may have missed a couple, but. . .

Q. Were there values that were estimated or imputed into the Minnesota BRFSS data?

A. Well, there was the one we talked about earlier where in some cases within BRFSS public aid status was, in a sense, estimated by low income or replaced by low income.

Q. In your lexicon, was that imputation or estimation?

A. That's a good question. I would have to think about that distinction.

Q. Any others within BRFSS?

A. None that come to mind. But again. . .

Q. Weren't expenditures in some way estimated into BRFSS using the refined models regressions?

A. Well, in a sense, yes. Basically, a SAF was attached to the BRFSS records, and that SAF includes the calculation of expected expenditures and probabilities.

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Caution: http://industrydocuments.ucsf.edu/docs/grfl0001

Q. Right. That's how it was calculated, right?
A. Yes.
Q. In the same way, I guess, wasn't current treatment a for tobacco-related disease imputed into BRFSS -- excuse me, estimated for BRFSS?
A. I don't think that would be correct as, because currently treated disease comes from the claims data. And then inherently, the BRFSS data is used to estimate the population, the other population characteristics for that group, if I understand your question correctly.
Q. I understand we're in Dr. Miller's arena, but let me ask you the question anyway. And that is, didn't the bi-variate normal regression, in effect, estimate current treatment for tobacco-related disease in the BRFSS population?
A. Yes, in effect I think that's correct. That's part of the SAF calculation, which we've said has been estimated in BRFSS.
Q. And by the same token, then, in effect smoking status was similarly imputed or estimated in the BRFSS population through the

bi-variate normal regression.
A. Except for -- I believe that's true only for the current disease segments.
Q. Yes, that's right, in the disease specific models.
A. Yes.
Q. Last data set.
A. Well --
Q. I'm sorry, go ahead.
A. Can I step back on that one?
Q. All right.
A. I want to be sure I say this correctly.
What was imputed in there was the probability of smoking given that they had a currently treated disease.
Q. Yes. Any other imputations in BRFSS?
A. I can't think of any right now.
Q. Let me see if I can jog your recollection, it could be unmistaken.
But at least for some years just as you were missing information on insurance, weren't you also missing information on seat belt usage?
A. I don't recall about that.
Q. Were there any imputations with or

estimations that were done to supply missing values in the NMES data set, itself?
A. The effects of missing values were certainly estimated.
THE COURT REPORTER: The effects what?
THE WITNESS: The effects of missing values were estimated. I don't know that that exactly fits in with the estimation imputation lexicon.

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support http://www.industrydocuments.ucsf.edu/docs/grfl0001

BY MR. BIERSTEKER:
Q. And those effects were estimated through the use of the dread inverse Mills ratio?
A. That is correct.
Q. Were there some instances where smoking values within NMES were imputed as you used the term?
A. I think there were a few records where there was missing information just on the smoking variable.
Q. And in those instances if the information was missing, you assume the person fell into the smoking category.
A. I don't recall that we did.
Q. There's a discussion in the report about the

estimation of confidence intervals using something called a jackknife technique.
Are you the person to ask about that?
A. I'm a person to ask about that.
Q. All right. Well, let me ask you this question: did that procedure take into account uncertainties that arise because data had been imputed or estimated in any of the data sets?
A. Well, to some extent, yes, because you're doing different sets of imputations and estimations with each of the repeated calculations used in the jackknife.
Q. Was the uncertainty associated with the imputation or estimation of values for missing data completely taken into account through the jackknife method?
A. I would have to think about that.
Q. Why don't you do that and we will revisit this because it's of interest.
Have you reviewed the scientific literature concerning smoking and health care costs?
A. Yes.
Q. Have you done that in a systematic way?

A. Yes.
Q. The report asserts on Page 6 that the estimates made by you and Doctors Miller and Zeger are consistent with the estimates found in the scientific literature, is that right?
A. Yes.
Q. With what articles do you believe your estimates are consistent?
A. There are a number that I've read whose titles I couldn't recall for you.
Those that I can would include a study of the Framingham Group published about '93 in "American Journal of Preventive Health," I think.
Manning's work.
Q. I'm, I'm -- was the Framingham Study -- I'm sorry to interrupt, but I know I am, but let me just ask this question because otherwise I'll forget: was the Framingham, the article dealing with the Framingham Study one that focused on disease incidence or cost?

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support http://industrydocuments.ucsf.edu/docs/grfl0001

A. Cost.
Q. All right, thank you. My question is directed to cost. But --
A. That's what I --

167

Q. All right.
A. -- thought.
Q. That's fine. I'm sorry, go ahead.
A. Dr. Manning's work. There's an actuarial study by Milliman & Robertson.
Q. Do you recall what the subjects were of that study?
A. I believe they were employees of Control Data Corporation.
Q. Thank you.
A. The best of my recollection.
Q. Mr. Silfen is still bothered by the Framingham Study, and he wants me to ask you whether there's anything else you can tell us about it that might help us to identify it.
Do you know who the authors were, for example?
A. No, but I'm pretty sure it's '93. And pretty sure it's "American Journal of Preventive Health." And it has Framingham in the title and I think cost in the title, so you ought to be able to do a search and find it.
Q. All right, continue. You had listed three articles. Any others?
A. Those are the ones that specifically come to

168

mind. As I say --
Q. How did you --
A. -- there were numerous others.
Q. I'm sorry.
A. I glanced at numerous others in the course of this exercise.
Q. Are these the only three articles that you've actually read? You use the word "glanced," and I'm not sure if you meant --
A. No, I read some of the other ones, and others I have glanced at.
Q. How did you judge whether or not an article was consistent or inconsistent with your estimates?
A. Well, they used methodologies that were similar or inferior to ours.
Q. I'm sorry?
A. Similar or arguably less complete than ours. Whether they came up with smoking-attributable costs, whether those costs were in the general ballpark of what we've been finding, and whether they used data that was similar to or less complete than the data that we relied upon. I think that would be the main list.

169

Q. If an article used less complete data compared to what you used and less reliable methods than what you used but, nonetheless, got smoking-attributable expenditures in the ballpark, is it thumbs up on consistency?
A. Well, I would go further than that. It's

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://industrydocuments.ucsf.edu/docs/grfl0001

additional reassurance to me that all of our methods are within the realm of what's accepted and appropriate for studying this kind of issue. And that even with different methods, if you still get approximately the same results, that's some additional source of confidence.

Q. So yes, it's at least consistent and possibly more?

A. I think that's correct.

Q. Was Dr. Manning's method similar to yours?

A. When he was estimating what he calls, I think, direct medical costs, yes, it was in many respects.

Q. Was Dr. Manning's data similar to yours?

A. It was similar, but I would say he reached his conclusions on certainly less complete data than ours.

Q. In some respects, Dr. Manning's method was

very different from the method that you employed even for direct medical care costs, wasn't it?

A. I don't think I would have characterized it as very different but it's different in some respects, certainly.

Q. Wasn't Dr. Manning's analysis longitudinal?

A. Not for direct costs, at least not the part that I'm addressing.

Q. Did you read Dr. Manning's book "The Costs of Poor Health Habits" --

A. Yes.

Q. -- or glance at it?

A. No, I read that.

Q. In any event, the analysis that you have performed here is a cross-sectional analysis, isn't it?

A. It's cross-sectional in some respects and longitudinal in others.

Q. In what respects is it longitudinal?

A. Well, we certainly covered years from 1978 through 1996.

Q. But you did them one year at a time, right?

A. That's correct.

Q. Why did you analyze costs from 1976 through

19 --

A. '78 to '96?

Q. Excuse me, '78 to '96, one year at a time instead of looking at costs over what whole period?

A. Well, by looking at them one year at a time, you are looking at them over that whole period.

Q. Is that the same thing?

A. I've looked at the costs in each year.

Q. Pardon me?

A. We've looked at the costs in each year and added them up.

Q. Will you get the same result if you look at the costs in each year and add them up as you would if you looked at the costs over the entire period?

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

A. In the sense that I'm talking about. If you look at the costs attributable to smoking-caused diseases in each year and add those up, the diseases that occurred in the Minnesota population, that's exactly what you'd get.
Q. Doctor, I don't think that was responsive to the question.

172

If you looked at costs attributable to smoking from 1978 through 1996, not year by year but over the entire period, would the result be the same as you get by looking at them each year individually and adding them up?
MR. LOVE: I object as asked and answered. You can answer again.
THE WITNESS: I believe if you want to calculate the costs of treating smoking-attributable diseases that were incurred by Medicaid and Blue Cross that you get exactly the same result.
BY MR. BIERSTEKER:
Q. Have you done a calculation looking at all of these years together instead of one at a time?
A. Yes, that's what the summary numbers in the report show --
Q. Well --
A. -- you have to add them up.
Q. -- you know what I mean. Have you, have you looked at the costs incurred over an entire 18-year period and compared them to the estimates that you derive looking at each

173

year in that 18-year period one at a time?
A. What we've done is exactly what I've said.
Q. Is the result that you have obtained in your report the same as the result you would get by following a group of smokers and nonsmokers over an 18-year period and looking at their expenses for that whole 18-year period?
MR. LOVE: I object to the form of the question. But answer if you can.
MR. BIERSTEKER: I don't think this question's been answered.
MR. LOVE: I didn't say it was asked and answered. I object to the form of it.
MR. BIERSTEKER: Oh, the form of it. I'm sorry.
THE WITNESS: Well --
MR. BIERSTEKER: It's an unexpected new objection.
THE WITNESS: Every smoker and every nonsmoker that was in Medicaid or Blue Cross during this time period is included in the analysis. So our analysis, as it stands, tracks every expenditure made for their

174

health care cost.
BY MR. BIERSTEKER:

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support provided by the Tobacco Industry Documents Library at UCSF http://tobaccodocuments.ucsf.edu/docs/grfl0001

Q. I'm, I'm sorry, that's really not responsive to the question I asked. And I would like an answer to that question.
A. All right.
Q. If you, if you --
MR. LOVE: You're just arguing with the witness.
MR. BIERSTEKER: I'm not arguing with the witness.
MR. LOVE: You are.
MR. BIERSTEKER: Well, look, the record will, will, will reflect what the answers and the questions have been, and I don't think I've gotten an answer to this question, with all due respect.
BY MR. BIERSTEKER:
Q. And so I would like to put it to you one more time. If you took a group of smokers and a group of nonsmokers and you followed them for 18 years and you added up the costs for the smokers and the nonsmokers over that entire 18-year period, would you get the same result as you get using the analysis that you have

used in your report looking at those individuals one year at a time?
MR. LOVE: I renew my objection to the form of the question.
MR. BIERSTEKER: That's fine.
MR. LOVE: And just for clarification, are you assuming no new entrants? You start with people 18 years ago and follow them all the way through and don't take any new entrants to that group?
MR. BIERSTEKER: That's an objection?
MR. LOVE: Well, I don't understand the question.
BY MR. BIERSTEKER:
Q. Is it the same thing, Doctor?
A. Would you. . .
Q. You -- do you understand what I'm asking you? Let me try one more time.
If you took a group of smokers and nonsmokers and followed them over 18 years and each year, and, and for each year you looked at the smokers and nonsmokers and added up their medical expenditures over the course of the 18 years, would you get the

same result as you get using the methodology you employed in your report?
MR. LOVE: Same objection.
THE WITNESS: I've never done that. I'm not going to speculate on what I would have gotten had I done so.
BY MR. BIERSTEKER:
Q. Do you have any idea, one way or the other, whether the results of the two analyses will yield the same result?
A. Not without knowing a lot more information on how this is being done.
MR. BIERSTEKER: Why don't we

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Creative http://www.tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

take a short break.
THE VIDEOGRAPHER: The time is now 3:17, and we're temporarily going off the video record.
(A recess was taken.)
THE VIDEOGRAPHER: We're back on the video record. The time is now 3:32.
BY MR. BIERSTEKER:
Q. Doctor, what is the difference between a prevelence-based and an incidence-based analysis of health care costs?
A. Well, I think those terms are not always used

177

with perfect precision, but in my mind an analysis of incidences of new cases and an analysis of prevelence has to do with existing cases.
Q. And doesn't the incidence-based analysis occur over a number of years? A prevelence-based analysis is usually concerned with a one-year or more limited time frame?
A. I would think incidence can be either one. Prevelence is usually more cross-sectional.
Q. And what is the difference between a lifetime analysis versus an annual analysis?
A. I don't know that that's a term I've used.
Q. Is it a term that you have seen in your review of the literature?
A. I'm not sure.
Q. In any event, is the analysis that you have performed here an annual analysis?
A. Yes.
Q. Is the analysis that you have performed here a prevelence analysis?
A. Well, I would call it a prevelence analysis. Since we're talking about costs and things here, I'm not certain that maybe an

178

epidemiologist would use it in quite the same way, but I, to me it's a prevelence analysis.
Q. Well, you've seen the term "prevelence" used in connection with estimates of health care costs, haven't you?
A. Yes.
Q. Was Dr. Manning's analysis of direct health care costs an incidence-based analysis or a prevelence-based analysis?
A. The part of his report that I looked at in most detail and in terms of being similar to what we did I would call a prevelence analysis.
Q. Did you read the part of Manning that analyzed nursing home costs?
A. I know I read it. I don't recall much about it.
Q. Do you remember whether that was a prevelence- or incidence-based analysis?
A. No.
Q. Do you recall whether that was a temporal or a cross-sectional analysis?
A. I don't remember any cross-sectional analysis of nursing homes.

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support: http://www.industrydocuments.ucsf.edu/docs/grfl0001

Q. Did you ever discuss with Doctors Zeger,

179

Miller or Samet the possibility of conducting an analysis of health care costs over time as opposed to each individual year?
A. I don't know, what you mean by "over time"?
Q. A longitudinal analysis as opposed to an annual analysis.
A. Of the Medicaid data?
Q. Well, I'm not sure what that qualification is designed to do.
Let me ask it more generally first. Did you ever discuss with Doctors Zeger, Miller or Samet the possibility of conducting a longitudinal analysis of health care costs attributable to smoking for either Blue Cross Blue Shield or Medicaid or GAMC?
A. There were general discussions of other types of analysis that people do of medical costs.
Q. Was a longitudinal analysis the subject of any of those discussions?
A. I believe that was mentioned, yes.
Q. Could you summarize for me what you discussed concerning longitudinal analyses?
A. Well, we discussed what we were asked to do and what we were asked to analyze, and concluded, to the limited extent we knew

180

anything about those, that they were inappropriate and we were doing what was appropriate.
Q. Well, why would a longitudinal analysis be inappropriate?
A. We were asked to determine the costs expended for smoking-attributable diseases in the Minnesota populations during this time period and we did that.
Q. You couldn't do that using a longitudinal analysis?
A. Not that I know of.
Q. Why not?
A. I don't have an answer to that. I couldn't figure out any way in those discussions or any recollection that I have that it was pertinent, and what we were doing was pertinent.
Q. Wait a minute. Why would a longitudinal analysis be not pertinent?
A. I don't recall the gist of those discussions.
Q. Well, isn't it --
A. What we determined was that we were asked to do a certain analysis, and we did that in an appropriate and correct manner.

181

Q. Isn't it true that in your review of the literature there are a number of studies that analyze health care costs on a longitudinal basis?
A. In general, yes. I don't know of any of those that pretend to estimate the exact cost of smoking-attributable diseases that actually occurred in a population such as the one we studied.

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

Q. So you're not saying, then, that a longitudinal analysis of health care costs attributable to smoking is always inappropriate or not pertinent, are you?
A. People study health care costs in many different ways and contexts, many of which have nothing, whatsoever, to do with what we're doing as far as I can tell.
Q. Well, when is it appropriate to use a longitudinal analysis instead of an annual analysis?
A. I have no idea. I was concentrating on our annual analysis, which I believe to be correct, and didn't spend any time doing analyses of other things and other places that one might do.

182

Q. Were you specifically directed to perform an annual analysis in this case?
A. Absolutely not.
Q. In your review of the literature, did you identify any articles that you thought were inconsistent with the estimates you're presenting here?
A. No.
MR. SCHWARTZBAUER: Excuse me.
BY MR. BIERSTEKER:
Q. Doctor, you testified just a few moments ago that you were asked to do a certain analysis. What analysis was it that you were asked to do?
A. The one stated at the beginning of our report.
Q. And that is?
A. To determine the amount of money that the Plaintiffs expended in 1978 to 1996 to purchase smoking-attributable health care services?
Q. And is it your testimony that that question could not be analyzed longitudinally?
A. I don't know of any way that it could.
Q. Why not?

183

A. I don't know. I just told you I don't know of any.
Q. You don't know of any reason why it cannot be analyzed from a longitudinal perspective?
MR. LOVE: Well, I object.
MR. BIERSTEKER: Well, I'm, I'm, I'm trying to clarify the response because I don't understand it.
THE WITNESS: Well, can you ask the question again to make sure we're on the same page here?
MR. BIERSTEKER: Well, could the court reporter read it back, please?
(The previous question was read by the court reporter.)
THE WITNESS: I think my answer was I don't know any way that it could. I focused on the way it could be done that we determined to be appropriate and realistic, and that's what we did.

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support http://industrydocuments.ucsf.edu/docs/grfl0001

BY MR. BIERSTEKER:
Q. I, I may have already asked this and I'm, if I did, I apologize.
But why couldn't that question be answered with a longitudinal analysis?

184

A. Well, what kind of -- I can't answer that now. You'd have to tell me all kinds of particulars about the analysis.
Q. Oh, so it depends upon the nature of the longitudinal analysis?
A. Well, what I've told you is I don't know what could be done with analyses that I really haven't considered to any great degree, because we found analysis that was appropriate and pursued that analysis. And I believe it correctly answers the question that was posed.
Q. Well, now I'm confused.
Is it possible to devise a longitudinal analysis that could appropriately answer the question of how much money the State of Minnesota and Blue Cross Blue Shield of Minnesota spent from 1978 to 1996 to purchase smoking-attributable health care services?
A. I don't know.
Q. Page 4 of the report, as long as we have it before us, says near the top of the page, quote "Smokers entering nursing homes during this period were far more likely than never-smokers to be suffering from lung

185

cancer and chronic obstructive pulmonary disease or COPD," close quote.
Do you see that near the top of the page?
A. Yes.
Q. Did you examine this issue?
A. Yes.
Q. What is the basis for this statement?
A. We ran some tables that simply counted those things.
Q. From which data, the claims data?
A. NHANES.
Q. NHANES. Were the analyses that you performed produced to Defendants?
A. I don't know.
Q. If it were possible, what I would like you to do is to determine if they were. And if they were, to tell me where they are because I don't think we have them, and it would save us a lot of time and trouble -- further time and trouble to try to find them.
MR. BIERSTEKER: I'm sorry. Yes?
MR. HAMLIN: I've got a copy of the table upstairs. And I can, if you want

186

to break --
MR. BIERSTEKER: I'll --
MR. HAMLIN: -- to get copies then we'll bring them down.
MR. BIERSTEKER: Why don't we

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Digitized by the Legacy Industry Documents Library - http://legacyindustrydocuments.ucsf.edu/docs/grfl0001

just get a copy either at a break or the end of the day today --

MR. HAMLIN: No problem.

MR. BIERSTEKER: -- because we've got tomorrow too.

MR. HAMLIN: Sure.

MR. BIERSTEKER: That's fine.

BY MR. BIERSTEKER:

Q. Did you perform analyses of the incidence of diseases other than lung cancer and COPD among smokers and nonsmokers entering the nursing homes, nurse -- entering the nursing home in the NHANES data?

A. Other disease were tabulated at the same time.

Q. And is that also included on the table that Mr. Hamlin has?

A. If we're thinking about the same table, yes.

Q. And the period that you're referring to, would that be the entire period from 1982 to

1992?

A. I believe so.

Q. Did you make this computation on an annual basis, or did you do it over the course of the entire 10-year period?

A. I believe it was done over the entire period.

Q. Did you perform this analysis controlling for age?

A. Yes.

Q. Did you control for age by group or by actual years since birth?

A. By group.

Q. Do you recall what the groups were?

A. Above and below the median age of entering nursing homes.

Q. What is that median age?

A. I don't know.

Q. Dr. Miller characterized portions of the NHANES data as iffy.

Did you see that testimony when you were reading his transcript?

A. Yes.

Q. Okay. Did you have any reservations about the quality of the NHANES data?

A. No, that was just -- that's a very good

database. I think it was less complete with regard to the period between the first interview and the first follow-up in '82.

Q. And that would be the '72 -- wasn't it 1972, the first interview?

A. I think it was over like a three- or four-year period.

Q. You're right, yes, it was, yeah.

A. And then --

Q. But that's when it began, was in 1972?

A. I, that's certainly approximately correct.

Q. Have you read the report or analyses submitted by Dr. McCall, one of the defense experts?

A. I've read parts of it.

Q. Have you read the part addressing nursing

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Caution: http://industrydocuments.ucsf.edu/docs/grfl0001

homes?
A. I think so.
Q. Was Dr. McCall's analysis a longitudinal analysis?
A. I think he discussed different forms of analysis. I don't recall an analysis that he did.
Q. Was your examination of the relative rates at which smokers and nonsmokers entering the

nursing homes had lung cancer or COPD a longitudinal analysis?
A. We're getting a little into semantics here, but I don't think I would call what we did a longitudinal analysis. We did follow people over time.
Q. If you had followed the people over 20 years, say from 1972 to 1992, would you consider the analysis that you did with respect to lung cancer and chronic obstructive pulmonary diseases in nursing home entrants to be longitudinal?
A. I'm sorry, say that again.
Q. Let me ask the question in maybe a more direct way. And that is, why isn't the, the study that you did, the, the table that you did concerning lung cancer and COPD in nursing home residents a longitudinal study?
A. Well, we're building a profile that's applicable to our annual analyses.
Q. Well, so I guess if you studied people over time -- well, I'm not sure. What, what did you mean by that?
A. Well, you have to follow them over time to get them at different ages so you can make an

age specific determination.
Q. Why do you have to do that?
A. Because age is an important factor in going into nursing homes and we control for age.
Q. In the end here, aren't we concerned about whether or not smokers or nonsmokers enter the nursing home more frequently?
A. Our study didn't really focus on entering more frequently. It's focused on, on an annual basis where smokers, did smokers tend to be there more often than nonsmokers.
Q. Well, that's. . .
A. Sort of prevelence as opposed to incidence.
Q. Is it possible that the smokers in any given year may have been in the nursing homes a greater number of days but that over the entire 10-year period they were not?
A. Could you ask that again, please?
Q. Is it possible that the smokers in any given year were in the nursing home a greater number of days than never-smokers, but that if you looked at the 10-year period from to 1982 to 1992 as a whole they were not?
A. No, I'm not quite sure how you're doing that calculation. If you're, I think, taking the

proportions correctly, I'm not sure that that

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

is possible.
Q. Well, what I was thinking of doing is taking the number of smokers you had in 1982 and the number of nonsmokers and adding up the days for the smokers and the nonsmokers over the whole 10-year period and computing an average.
A. Adding up which days?
Q. The number of days spent in a nursing home.
A. Just adding up over a 10-year period the number of days in a nursing home?
Q. Yeah, for each person that started in 1982.
A. And?
Q. And once you get the totals, averaging over the number of people who were smokers in 1982 versus the numbers of people who were nonsmokers in 1982.
A. That's, I wouldn't regard that as an appropriate calculation for anything that we were doing.
Q. Why not?
A. It's fundamental in epidemiology to look at denominators, amount of exposure in a study like that. You've got to track the amount of

time you're actually observing people, the time they were there. You can't simply add up numbers. I mean, in a sense that's a, what we might call a distorted incidence study.
Q. But that is how a longitudinal study would be done, isn't it?
A. Well, I'm not sure in this context. It may be. I don't think I've characterized what we did as a longitudinal study.
Q. No, I'm asking, though. Isn't that the way a longitudinal study would be done?
A. It might be the way some longitudinal studies are done. I haven't really thought about longitudinal studies to any great depth in this respect.
Q. Well, in your review of the literature, have you ever seen a longitudinal study done in exactly this way?
A. Possibly.
Q. Have you ever seen it done in a different way?
A. I don't know. I didn't pay much attention to them.
Q. Did you have any reservations or criticisms

of the quality of any of the claims data that you examined?
A. Well, no large database is absolutely perfect, but I was, in my experience working with large databases, quite astounded at the completeness and what seemed to be the general quality of these data.
Q. As I understand the information in your report, there were certain years for which you did not have claims data.
A. That's correct.
Q. And for example, the last year that you had

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Stanford http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

claims data for Blue Cross Blue Shield was 1980, I think, right?
A. I believe, yes, in 1980 to 1995 for Blue Cross, I think.
Q. Right. And, in fact, the Blue Cross data, I think, covered a larger period of time than the data from either Medicaid or GAMC, right?
A. That's correct.
Q. And if I understand your report correctly, what you did is you a took the SAF that you computed for 1980 for Blue Cross Blue Shield and applied that SAF to the earlier years for which you did not have claims data, right?

A. That's essentially correct. There was a prorating of the total dollars, total claims dollars in 1980, and then the same SAF was applied.
Q. Right. You have to apply the SAF to something. You applied it to total dollars included in annual reports, sometimes adjusted for the fact that the, the programs are run on a fiscal year, right?
A. That's correct.
Q. Do you know when Blue Cross Blue Shield of Minnesota first started to require providers to submit diagnostic coding information as a condition of payment?
A. No.
Q. Do you know if today Blue Cross Blue Shield of Minnesota requires providers for its fully insured groups to provide diagnostic coding information as a condition of payment?
A. That was my understanding.
Q. Did you speak to anybody at Blue Cross Blue Shield of Minnesota concerning the diagnostic coding information reflected in this claims data?
A. Yes.

Q. Who did you talk to?
A. I don't remember who specifically was the source of that information. There were several people I talked to about these kinds of issues at one time or another.
Q. Do you remember the names of any of the people you spoke to at Blue Cross Blue Shield of Minnesota?
A. Sure, Jerry High.
Q. Anybody else?
A. I remember people working for him that I spoke with.
Q. Do you recall any of their names?
A. Barb Miller.
Q. Any others?
A. Emily Chung. And numerous people that there was some specific question about claims data, we would call or talk to during the day, in a given meeting. I don't, I certainly don't remember many of their names.
Sue Quint.
Well, I talked to an attorney out there.
Q. I don't care about attorneys. Did you talk

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://industrydocuments.ucsf.edu/docs/grfl0001

to somebody named Judy, and I may be pronouncing this, but Busse, B-U-S-S-E?

196

A. Yes. Her name came up in discussions, and my recollection, which is not perfect, is that she was consulted on a number of these issues.
Q. Would it affect your opinions in this case if Blue Cross Blue Shield of Minnesota did not regard the diagnostic coding information in its claims records for years prior to 1983 as reliable?
A. Did not regard them as reliable?
Q. Yes, sir.
A. I guess that would depend on the extent to which and in what ways they considered them unreliable.
Q. Did you examine the frequency with which claims in the Blue Cross Blue Shield of Minnesota database were missing diagnostic coding information over the years?
A. Yes.
Q. And what did you determine?
A. There was some missing information, but nothing that led me to think there was anything particular, particularly unusual in terms of databases of this sort going on.
Q. Did you notice that there were a greater

197

percentage of claims that did not have diagnostic information in the earlier years as opposed to the later years?
A. My recollection is that there -- in the data that I looked at -- there was some trend in that regard, but I don't remember what it was.
Q. In what way would the claims data have to be unreliable for years prior to 1983 for Blue Cross Blue Shield of Minnesota in order for it to affect your opinions in this case?
A. Well, if the only thing that was unreliable were the ICD-9 codes, it's simply a result, and the primary result would be a much lower pot for the currently treated disease groups. So the estimate would be too low in that respect.
Q. Well, I'm not sure I understand why that would be. Couldn't it also be too high?
A. Oh, excuse me. If -- I was addressing that comment to missing ICD-9 codes. I'm not sure if I made that clear. If the ICD-9 codes were missing ICD-9, then there would be no way to assign someone to a currently treated disease group. So that would, all else

198

equal, tend to make our estimates too high -- or excuse me --
Q. Too low.
A. -- too low.
Q. And it would make them too high if people were coded as having a current tobacco-related disease erroneously?
A. If that were happening, yes.

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf Caution: http://industrydocuments.ucsf.edu/docs/grfl0001

Q. There's a footnote to this report on Page 43, it's Footnote 22 that I wanted to ask you about.
Have you found it?
A. Uh-huh.
Q. Part of this footnote suggests that for people in the CHD/stroke group who spent any part of the year in a nursing home you attributed zero dollars to smoking, is that right?
A. That's correct.
Q. And is that true for all of the different models or is this with respect to the core model?
A. Core model.
Q. And there's a sentence here I don't understand the meaning of and I was going to

ask you about it.
It's the sentence that reads, quote, "This," referring to the exclusion, "is a simple way of allowing for the fact that the relative risk for smokers of these diseases decreases with age," close quote.
Do you see that sentence?
A. Yes.
Q. What does that mean?
A. It's my understanding that the relative risk does decrease with age.
I believe for people not in the nursing homes, the core model makes a reasonable control for that with its groups.
But when we bring in nursing home people, and I'm excluding the maintenance costs here, they tend to be very much older and very much older in a way that is not captured very well by NMES.
So for that reason, I simply set their second reduction to a hundred percent for those people in that group.
Q. The reduction percentage was zero.
A. The reduction percentage is zero.
Q. In NMES, were there more never-smokers in

these very old age groups with the category of diseases we have called CHD/stroke than there were among the smokers?
A. I don't know.
Q. If that were the case, the reduction percentage would be negative, wouldn't it?
A. I'm sorry, would you go through that once more?
Q. If the incidence of CHD/stroke in NMES among individuals who are old was greater among the never-smokers and you calculated the second reduction percentage in the core model, wouldn't that production percentage be negative?
A. Well, that depends on where you made your age group cutoff.
Q. Does the relative risk for smokers at any age for the CHD/stroke group of diseases become less than one?

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Caution: http://industrydocuments.ucsf.edu/docs/grfl0001

A. According to what source?
Q. Well, I'm asking. The sentence here says that the relative risk for smokers for CHD/stroke increases with age. And what I want to know is, does it ever become less than one?

201

A. I'm never seen any evidence to that effect.
Q. Have you examined in the data what the relative risk is?
A. I've examined that there were declining relative risks. I have not looked at the question you're posing.
Q. Do the relative risks for smokers for lung cancer/COPD also decrease with age?
A. I think they may slightly, but it's my understanding that they're much, much less so than the CHD/stroke.
Q. Were these analyses of the relative risks for CHD/stroke and lung cancer/COPD among the materials produced to us?
A. Yes.
Q. Was the computer code that ignored costs for individuals in the nursing home with CHD/stroke produced to us?
A. Yes.
Q. Again, this is one of those instances where, despite best efforts, we can't seem to find it. If you could give me the name of the program, I would be most appreciative. I can understand if you can't do that as you sit here now.

202

A. I certainly can't do that.
Q. Right. But if you could, could investigate that, I'd sure appreciate it because we can't seem to find it.
A. Okay.
Q. Thanks. These questions are courtesy of Mr. Schwartzbauer.
MR. SCHWARTZBAUER: So were some of the earlier ones. You just didn't give me credit for those.
MR. BIERSTEKER: The ones that work I claim credit for.
THE VIDEOGRAPHER: Do you guys want to --
MR. BIERSTEKER: I'm sorry?
THE VIDEOGRAPHER: Do you want to switch over before you --
MR. BIERSTEKER: Are we at that stage? Okay, fine.
THE VIDEOGRAPHER: The time is now 4:20 and this concludes Tape 3 in Dr. Wyant's testimony.
(A recess was taken.)
THE VIDEOGRAPHER: We're back on the video record. The time is now 4:23, and

203

this is the beginning of Tape Number 4 in Dr. Wyant's testimony.
BY MR. BIERSTEKER:
Q. Doctor, have you included in your damage

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Digitized by http://industrydocuments.ucsf.edu/docs/grfl0001

estimate claims for Blue Cross Blue Shield of Minnesota that cover state employees from 1983 on?

A. Only to the extent that any of them are in rated plans.

Q. And by "rated plan," you mean a fully insured group?

A. I believe that's correct.

Q. A similar question: do you, have you included in your damage estimate moneys paid by the State of Minnesota for its employees from 1977 forward?

A. I'm sorry, say that again.

Q. Yeah, let me try it a different way. I'll revert to Schwartzbauer's terms.

Does the state claim damages for state employees from 1977 forward?

A. I don't have any opinion on what the state is claiming.

Q. Have you included in your damage estimate claims for state employees from 1977 forward?

A. I guess -- I'm sorry. Would you repeat that?

Q. Do you include in your damage estimates health care costs incurred by state employees in any year from 1977 forward?

A. Well, if they're -- I may be missing something here. If they're in rated group plans, then they're included in the calculations.

Q. So only those state employees who were in a fully insured group covered by Blue Cross Blue Shield of Minnesota are included in the damage estimates, is that right?

A. I don't know if there's some distinction here of importance between fully insured. We took the rated groups in which I understand Blue Cross bears the risk, and that was in the data they gave me.

And I'm making the assumption that that's what matches with what you just said. If there's some insurance subtlety about fully insured or not, I'm not --

Q. Well, I, I took fully insured to be the same as your fully rated.

A. Okay.

Q. Is, is that your understanding or do you not

have one?

A. No, that's my understanding. I'm just limiting my expertise here.

Q. Fair enough. Is there a separate amount of damages -- let me put it this way: you calculated damages separately for Medicaid, GAMC and Blue Cross Blue Shield of Minnesota, correct?

A. Yes.

Q. A portion of the damages claimed by Blue Cross Blue Shield of Minnesota are for covering state employees who participate in fully rated groups, right?

A. Well, I, I don't know that Blue Cross is claiming them. That's the way my

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Caution: http://pdfindustrydocuments.ucsf.edu/docs/grfl0001

calculations work.
Q. Okay. And you may assume that everything that's in your calculations they are claiming.
A. Well, I don't know --
MR. LOVE: Well. . .
BY MR. BIERSTEKER:
Q. All right. Your damage estimate includes a separate estimate of damages for Blue Cross Blue Shield of Minnesota, right?

206

A. Yes.
Q. And part of that damage estimate for Blue Cross Blue Shield of Minnesota is based on coverage for employees of the state, right?
A. I'm sorry, I have to ask you to repeat that.
Q. All right. As I understand it, you computed damages for the fully rated groups covered by Blue Cross Blue Shield of Minnesota, right?
A. Yes.
Q. Some but not all of those fully rated groups consist of employees of the state, right?
A. That's correct.
Q. Can you tell me what the portion of the damages you estimated for Blue Cross Blue Shield of Minnesota are for coverage of state employees?
A. No.
MR. SCHWARTZBAUER: Is there any way of doing that from data?
THE WITNESS: With the data that I've been using, no, although I would presume in some way, shape or form it might be possible.
MR. SCHWARTZBAUER: You just don't know what that is as you sit here

207

today?
THE WITNESS: That's correct.
MR. BIERSTEKER: Yeah. It's bad enough when he writes the questions for me, but then he interjects like this, I should throw something at him.
MR. HAMLIN: Anarchy.
MR. BIERSTEKER: Anarchy. Anarchy.
MR. SILFEN: Way to get it done, Bob.
MR. LOVE: He's jealous.
BY MR. BIERSTEKER:
Q. Does your damage calculation include any moneys for Medicaid or GAMC recipients who are enrolled in health maintenance organizations?
A. I'm sorry. Again, I'm going to have to ask you to repeat this. I'm getting a little --
Q. Well --
A. --tired.
Q. -- let me ask this: were capitation fees for HMO coverage for Medicaid recipients or GAMC recipients included in the pots of money subject to your analysis?

208

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://industrydocuments.ucsf.edu/docs/grfl0001

A. Yes.
Q. How did you include those moneys?
A. In the core model they were included just like any other kind of expenditure.
Q. How about in the refined model?
A. I don't recall.
Q. It would be -- how are the capitation fees allocated to service categories for the refined model?
A. That's what I don't recall right now.
Q. Did you have diagnostic information for any of the capitation fees paid for HMO coverage?
A. For the capitation fees? No.
Q. Did you have diagnostic information for any of the individuals enrolled in an HMO?
A. Yes.
Q. Where did that information come from?
A. There were many people in this period who were just starting out in HMO plans, so there were fee-for-service records before they were enrolled.

In many of these plans I'm including prepaid health plans and other kinds of monthly premium kinds of things, as well as the HMOs.

Many of them do not -- many of them have limited coverage, and so you may see additional fee-for-service records in addition to the premium payments. So the extent that information was there we used it.
Q. How did your two-year window work, the two-year window screen work for individuals who participated in HMOs?
A. That same way; we just took them by year and whatever diagnostic information we had.
Q. But at some point the diagnostic information stopped, didn't they?
A. It wouldn't have no, absolutely no chance of being included in a currently treated disease group.
Q. So if somebody were in a fully insured group or fee-for-service group in 1980 and then in 1981 entered an HMO, they could be included in the core model for 1981, right?
A. Say that again, what you're --
Q. If somebody was in a fee-for-service group in 1980 and part of 1981 and then went into an HMO, it's possible that they were included in the core model for 1981.
A. That's correct.

Q. In 1982 if they were in an HMO and, therefore, you had no diagnostic information, they would be excluded, right?
A. That's correct.
Q. Were all of the individuals covered by HMOs who were enrolled in Medicaid or GAMC included in the diminished health status model?

We're almost done. We'll take -- we'll take, we'll be finished for the day in about another 5 or 10 minutes. I just want to run

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support: http://industrydocuments.ucsf.edu/docs/grfl0001

through the Schwartzbauer questions.
A. I'm having a little trouble focusing on these.
Could we -- I realize we're close to the end. Would you mind if I take a break for just a couple minutes here?
Q. That's, that's fine. We, we've only got about three or four more of these and then we're done, but let's wrap it up so we don't have to deal with it.
A. Okay.
Q. That's fine.
MR. BIERSTEKER: We're taking a short break.

THE VIDEOGRAPHER: The time is 4:35 and we're temporarily going off the video record.
(A recess was taken.)
THE VIDEOGRAPHER: The time is now 4:38 and we're back on the video record.
BY MR. BIERSTEKER:
Q. Are you refreshed?
A. I'm ready. And I don't remember your last question.
Q. You know, nor do I.
MR. BIERSTEKER: Was there one pending?
BY BY MR. BIERSTEKER:
Q. Were all individuals covered by HMOs who were also enrolled in Medicaid or GAMC included in the dollar estimates from the diminished health status model?
A. I think so, but I couldn't say for sure right now.
Q. I think I'd appreciate some clarification on this, if, if you could see your way through to do that, that would be helpful.
As I understood it, Doctor, we had talked about the core model and I just wanted

to see how these people were treated for purposes of diminished health model.
And I know there are a lot of details and I don't expect you to have complete recall and, in fact, I would compliment you on the degree of detail you have been able to recall during the course of the day today.
MR. LOVE: Just to make sure I got the question that we're --
MR. BIERSTEKER: This wasn't -- that wasn't a question.
MR. LOVE: No, no.
MR. BIERSTEKER: That was a pat on the back.
MR. LOVE: What he wants to try to find out the answer to, were all people who were --
MR. BIERSTEKER: Well, let me ask the question more generally.
MR. HAMLIN: Yes.
BY BY MR. BIERSTEKER:
Q. And that is, how were people who are Medicaid

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://industrydocuments.ucsf.edu/docs/grfl0001

or GAMC recipients and who are also enrolled in an HMO analyzed in the diminished health model, if they were at all?

213

Does that make sense? How would, how did you deal with them?

MR. LOVE: So you think you got to be GAMC or Medicaid and/or HMO.

MR. BIERSTEKER: Right.

MR. LOVE: How did you deal with those people.

MR. BIERSTEKER: Right.

BY MR. BIERSTEKER:

Q. And then there's a parallel question. Earlier we talked about state employees, and I thought that the damage estimate you generated for Blue Cross Blue Shield was limited to those people who participated in fully rated groups, right?

A. The calculation -- I think I'm saying this correctly -- the calculation for Blue Cross was limited to fully rated fee-for-service groups.

Q. So it did not include any participants in health maintenance organizations under the Blue Cross Blue Shield of Minnesota umbrella.

A. I believe that's correct.

Q. Again, if we could be certain about that, that would be useful.

214

Do you recall including health care dollars in your damage estimate for an organization known as Blue Plus?

A. It was my understanding that those were essentially equivalent to the HMO dollars and the fully rated, and those I did exclude from the calculations.

Q. Same question for First Plan of Minnesota, Inc.

A. I wouldn't know what that meant.

Q. If, if it were in the damage estimate, you would know that it was there, wouldn't you?

A. First Minnesota, Inc.?

Q. First Plan of Minnesota, Inc.

A. No, I'm not familiar with that term.

Q. And if it were included in the damage estimate, you would know it, wouldn't you?

A. Well, I just said I wasn't familiar with the term.

Q. I know. And now I asked, am I to take it from your unfamiliarity that dollars spent by First Plan of Minnesota, Inc. are not included in the damage estimate?

A. If they are a, a fully, if they are a rated fee-for-service plan, then they're included.

215

Q. Okay.

A. If not --

Q. Then they are excluded?

A. I believe that's correct.

Q. Okay. That's what I needed to know.

MR. SCHWARTZBAUER: That's fine.

MR. BIERSTEKER: Why don't we

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support by http://tobaccoindustrydocuments.ucsf.edu/docs/grfl0001

conclude for the day and we'll pick up tomorrow at 8:30?

THE WITNESS: Could I clarify one thing?

BY MR. BIERSTEKER:

Q. Oh, sure.

A. I think in passing a little while back we were talking about the declining relative risk?

Q. Yes.

A. And the calculations that I remember were, were quick and rough. I don't know that a computer program was actually saved. If it was saved, then you do have it in your discovery material, but I don't know if there is a specific calculation of that sort in that material.

Q. I appreciate that. Thank you.

THE VIDEOGRAPHER: The time is now 4:44, and this concludes the testimony for today, anyhow, of Tape Number 4 of Dr. Wyant.

(The deposition was adjourned.)

* * * *

STATE OF MINNESOTA)
) SS:
COUNTY OF HENNEPIN)

BE IT KNOWN THAT I, JAMES M. TRAPSKIN, took the DEPOSITION OF DR. TIMOTHY WYANT - VOLUME I;

THAT, I was then and there a notary public in and for the County of Hennepin, State of Minnesota;

THAT, I exercised the power of that office in taking said deposition;

THAT, by virtue thereof I was then and there authorized to administer an oath;

THAT, said witness, before testifying, was duly sworn to testify to the truth, the whole truth, and nothing but the truth, relative to this action;

THAT, said witness reserved the right to read and sign the deposition;

http://legacy.library.ucsf.edu/tid/nqq07a00/pdf
Support http://tobaccodocuments.ucsf.edu/docs/grfl0001

THAT said deposition is a true record of the testimony given by the witness;

THAT, I am neither attorney nor counsel for, nor related to or employed by any of the parties to this action in which this deposition is taken and, further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto, or financially interested in this action.

WITNESS MY HAND AND SEAL this _____ day of _____ 1997.

_____
JAMES M. TRAPSKIN
RPR, CM, CALIFORNIA CSR NO. 8407
Notary Public, Henn. County, Minn.
My Comm. expires January 31, 2000

DEPOSITION CORRECTION SHEET

CASE TITLE: MINNESOTA TOBACCO LITIGATION
DEPOSITION OF: DR. TIMOTHY WYANT - VOLUME I
DATE TAKEN: AUGUST 18, 1997
REASON FOR CHANGE A: To Correct Transcription Error
B: To Correct Spelling Error
C: To Correct Testimony

PAGE	LINE	DESIRED CHANGES	REASON

Deponent's Signature_____

Subscribed and sworn to before:_____
a Notary Public, County of _____, State of _____ on _____ 1997.

Return to: James M. Trapskin
RPR, CM, Calif. CSR 8407
620 Plymouth Building
Minneapolis, Minnesota 55402

http://legacy.library.ucsf.edu/tid/ngq07a00/pdf
Support provided by the Tobacco Industry Documents Project at UCSF http://tobaccodocuments.ucsf.edu/docs/grfl0001